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THE
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OF
MEDICINE AND SURGERY

A JOURNAL PUBLISHED MONTHLY IN THE INTEREST OF
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J. J. CASSIDY, M.D., EDITOR.

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NO. 1.

Original Contributions.

THE CARE AND TREATMENT OF THE CRIMINAL.*

BY C. K. CLARKE, M.D.,

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THE criminal has always been the most attractive person in the community, if we regard him from the standpoint of popular interest, and that this fact is generally recognized may easily be verified by a brief study of the daily newspapers. In a crude way we admit that, on "general principles," it is in the interests of the state that the criminal should be locked up, and the average man is not slow to say that punishment is meted out as a deterrent to the offender, and a warning to others who might be tempted to commit crime.

To-day the criminal is being studied and classified in a way that will result in his being cared for and treated in a more satisfactory manner than is at present the case, and with much better protection of the rights of the state. In taking up the question of the treatment of the criminal the first error to be avoided is that of confounding defect with disease, because without this distinction the whole question becomes muddled. Even Bosanquet does not seem to have fully grasped the difference, and in his work on the "Philosophical Theory of the State" writes about the "cure of the offender by medical treatment," as if there was always some disease to cure; and when he comes to write of the reformatory theory it is more patent still that he is not fully in touch with the facts now fully accepted by physicians, who have arrived at conclusions by practical methods. In dealing with the

*Read at meeting of Executive Officers of Provincial Boards of Health, held in Peterboro', September 10th, 1903.

question, I cannot lay claim to any great originality, and the views presented are those shared by physicians who have made a practical study of the criminal, and who hope that the day of radical reform in penology is not far distant.

The subject is, of course, an immense one, and there will not be time to take up the social and economic factors at work in the production of certain groups of criminals, and incidentally certain kinds of crime, but for fear that all present may not have a clear conception of the different classes of criminal ordinarily met with, I shall briefly refer to a simple classification: (1) The criminal insane; (2) Moral imbeciles; (3) Instinctive criminals; (4) Occasional criminals; (5) Habitual and professional criminals; (6) Accidental criminals.

The insane criminal, or properly speaking, the criminally insane man, that is, the criminal who commits a crime as the direct result of mental alienation, is not recognized by law, as a general rule, and his abnormal condition of mind must be very apparent, before either judge or jury can be brought to believe in the necessity of saving the prisoner from the rigors of the law. The result is that the death penalty is frequently imposed, even in cases where brain disease is clearly marked, simply because the unfortunate sufferer from the disease is supposed to know the difference between right and wrong in the abstract, a difference that nearly every patient in a hospital for the insane can give with satisfactory glibness. However, my views on this subject have been expressed so frequently, both publicly and privately, that I shall not weary you with them. To show, however, that the foregoing statements are not beyond the mark, it is morally certain that several insane murderers were hanged in Canada during the last few years, one of whom was actually arrested in the wards of an asylum for the insane, and tried without the slightest reference to his mental condition. In Germany, of 144 persons who were tried and eventually found insane, only 38 were recognized as insane before the judge, a condition of affairs rather startling in a country noted for the thoroughness of its methods. To those of us familiar with the everyday experiences in a hospital for the insane, perhaps the figures are not so surprising as they might appear to others not conversant with the popular idea of insanity, an idea not so far removed from the conception that insanity is in itself a species of crime; certainly something to be ashamed of. The present methods of attempting to detect the insanity of a criminal are inadequate and crude, especially when the mental condition of a prisoner is supposed to be established by a battle royal between rival lawyers and so-called experts in open court. Frequently those asked for opinions are refused permission to examine the prisoner, and the evidence becomes an attempt to

1 solve a problem more intricate than that of squaring the circle. It is wonderful though how often even physicians are anxious to square this circle; and the anxiety is generally in inverse ratio to the experience they have had. Of course common sense dictates that the proper time to examine the supposedly insane criminal is before trial, and it is probable that dignified and competent men, familiar with the aspects and manifestations of brain disease, can be found to give judicial opinions of even greater value than those of twelve jurymen, who, in all probability, never saw a case of insanity for more than five minutes in their lives.

A short visit to a penitentiary will soon convince the interested observer that justice has not always been done, and when I look over the endless list of insane persons sent from the penitentiary to Rockwood, suffering from chronic mental maladies, developed long prior to their incarceration in the prison, it is more than evident that man's inhumanity to man can be studied with painful reality at our own doors. Even the victims of gross brain disease are not exempt, and general paresis has time and again been seen among the convicts.

Moral Imbeciles.—The typical moral imbecile is one who is devoid, or nearly devoid, of moral qualities, just as we find some children deficient in intellectual qualities; such children are absolutely incapable of understanding the ordinary social, religious, and educational influences, and are almost invariably deficient in intellect as well as morality. Many, I might say most of them, are amiable, but drop into criminal acts without the slightest exhibition of what we call viciousness; indeed, the typical imbecile is rarely vicious in the true sense, he commits his crimes in the most innocent manner possible, and never realizes a sense of responsibility, simply because such feeling is an impossibility. Such cases reach me quite commonly, and some of the crimes committed by them are most astounding. All or nearly all, are easily managed when under proper care.

The Instinctive Criminal.—Some writers are inclined to place the moral imbecile and the instinctive criminal together, but I think a marked difference exists, for, while the moral imbecile is not usually vicious nor necessarily criminal, instinctive criminals are vicious from the outset. They reveal criminality in its most marked state, and while they form only a comparatively small proportion of the population of a prison, it is the element to be considered most seriously in the discussion of the care and treatment of the criminal. These people are not only mentally, but also physically abnormal.

In childhood they may be precocious, vicious, with sexual perversions of the most remarkable character, when at complete development they are moral monsters full of sensuality and self-

seeking impulses. Their depravity is absolutely beyond reach, their claims to mix with society untenable, and their degeneracy a menace to others not quite so low in the social scale.

Occasional Criminals.—The occasional criminal, who is not so far removed from the normal, as the members of the previous class, is one in whom weakness is the chief characteristic. Under ordinary circumstances he gets along fairly well, but if environment and circumstances are favorable to his fall he cannot resist temptation. If properly guided and cared for, he may be a useful citizen; if admitted to our so-called reformatories, ninety-nine times out of a hundred he will become that scourge of society known as the habitual criminal. As Ellis has so well said, "The steps by which the occasional criminal, aided on the one hand by neglect, on the other by the hot-bed of the prison, develops into the habitual criminal, are slow and subtle—that is one of the tragedies of life."

The Accidental Criminal.—The accidental criminal, or, as he is sometimes called, the criminal-by passion, must also be referred to, although I confess when it comes to suggesting what should be done with him, I shall feel that it would have been much simpler to have left him out of the classification. The criminal by passion is, in the majority of instances, a normally constituted person, who, stung by some great injustice or wrong, takes the law into his own hands, and in a moment of passion commits a crime.

Now, having admitted that criminals are to be classified under some such headings as those suggested, what are we to think of our system of prisons and so-called reformatories. These are built to accommodate so many criminals who are presumably all of the same class, and who are from the very first herded together with as much regard to classification, as if they were so many sheep.

The one idea present is apparently that of punishment, an idea that is not tenable for one instant for the classes that are admittedly abnormal. That this is the assumption is easily demonstrated, if we recollect that the law is quite able to apportion the length of time it is necessary to deprive a man of his liberty, for committing crime. One magistrate will give a thief two years for stealing a loaf of bread, while the society thief may receive six months for the misappropriation of \$10,000. Another magistrate adopts a different rule, and still has the law for his guide—in other words, to quote from Gilbert's "Mikado," "they make the punishment fit the crime," theoretically, at least. As Professor Ferri remarks, "Up to recent times the criminal has been regarded as a kind of algebraic formula, the punishment has been proportioned not to the criminal, but the crime. What should be done is to attain scientific justice by ascertaining the reasonable treatment of abnormal members of society, not only

in their interest, but also in the higher interests of the society to which they belong."

It is quite true that law cannot be expected to take note of the many differences spoken of in the classification of criminals, but it can at least provide the machinery by which the criminal classes can be properly treated and cared for. It would be almost too much to expect that a magistrate without training would dispense law with the slightest regard to scientific justice.

Of course society must protect itself against those who have violated its laws, but it is a question if the highest kind of protection is assured when punishment is aimed at the offence alone. This seems, ordinarily, the basis of the treatment of crime. Then again, the punishment of a criminal does not accomplish all that it sets out to do, as it almost invariably neglects to take the slightest cognizance of the social conditions and defective institutions which played an important part in the production of this outcast from society. The great trouble with the punishment theory is that it is based on the supposition that the criminal is in all instances a normal being, when the facts go to show that in many instances he is markedly abnormal.

To the physician the suggestion of cure invariably implies the existence of disease, and it is a common belief that the medical theory is wedded to a belief that crime is invariably the outcome of disease. Nothing could be more erroneous, as the classification adopted shows, and the utmost contended for is the very co-operation of judges and physicians suggested.

It is true that among us there is a knowledge of the fact that many murderers are epileptic or insane, and we know that many others guilty of this crime are criminals by passion, the least anti-social of any of the classes.

However, leaving the region of theory for a time, and taking the practical method of investigating the application of our laws in the care and treatment of well-defined criminals, what do we find in our own country? A ray of light has broken through the cloud in a few places, but on the whole we have little on which to congratulate ourselves when we study the methods in vogue. Our one ideal is uniformity, with absolute disregard of the individual, in other words the only question considered is that of making "the punishment fit the crime."

To commence with our classification, viz, the criminal insane. As I have explained before, when these sufferers from brain disease commit murder they are almost invariably hanged. A very few escape the gallows, and are acquitted on the ground of insanity; these are sent to the provincial asylums, which are not equipped to care for the criminal classes. Outside of that it is distinctly wrong to allow the criminal insane to associate with

the harmless insane, but the law insists upon it, and there is no escape. In case the crime is not murder, and the insanity is not discovered until the prisoner is transferred to penitentiary or prison, the result is somewhat different. If in the penitentiary, and his mental malady is not particularly annoying to others, he is kept with the ordinary convicts; if he is troublesome, he is transferred to what is by courtesy called the criminal asylum. As a matter of fact, an insane criminal is not treated differently from any other convict; when his sentence expires he is then entitled to treatment in one of the provincial institutions, and although the number of transfers has been large, we may well be silent about the recoveries.

Now as to the moral imbeciles. It matters little what becomes of them, for Mark Tapley cannot be compared with them for cheerfulness. Being devoid of moral sensibilities, punishments have no terrors for them, and a sentence of death is received with as much equanimity as an invitation to dinner. It is needless to say our penal system is quite oblivious to the existence of any such being as a moral imbecile, and confers on him the right to freedom when he has worked out his sentence; it will be learned in time that it will be best for all concerned to keep him under control for the whole of his life.

The instinctive criminal enjoys the same glorious privileges as the more amiable degenerate, the moral imbecile, but is much more apt to get into trouble, as even in prison his vicious nature may lead him into crime. If he succeeds in getting through his sentence without complication, he is once more at liberty to commit all sorts of atrocities, and is in trouble very soon.

The occasional criminal, the habitual criminal, and the accidental criminal are cooped up with the degenerates just mentioned—it is one crime, one treatment. What need of classification when law is such a science that it can compute the exact number of days or years to extenuate a particular misdeed! What a picture, and what possibilities for the future!

How much, or rather, how little, is done in our prisons for the reformation of the convict. Little is possible under the present system, which is nothing better than an institution for the perpetuation of criminality. No wonder the tide of criminality has risen.

Havelock Ellis says: "The key to the failure of the prison, and a chief clue to its reform, lies in the system of administering definite and predetermined sentences by judges, who, being ignorant of the nature of the individual before them, and, therefore of the effect of the sentence upon him, and of its justice, are really incompetent to judge." Possibly a slight recognition of this fact has occurred in Canada, where there is a tendency in minor

crimes to use what is called the suspended sentence, and a modified form of the parole system. That its effect is excellent all recognize, for unless we have a system that enables us to discriminate between different classes, how can we look for different results than those which are now the rule.

No one can deny the statement that there are hundreds of criminals in our prisons to-day who might under certain circumstances be set at liberty, while others who will in time be freed, will only continue to prey upon society and commit anti-social acts with regularity. The first step in the solution of the problem is of course obvious, viz., the proper development of the indeterminate sentence. This can be regarded as a mere starting point, although of vast importance, because it transfers the responsibility of fixing a sentence from the judge, who cannot form an opinion of the highest value in regard to the classification of the criminal during the course of a trial, where rival counsels are almost invariably doing their best to build up their reputations, rather than add to the knowledge of the court in regard to the prisoner.

The authority of the judge having been transferred to another quarter, it is obvious that the responsibility should be shifted, with great care and circumspection, to the prison or reformatory authorities. As the administration of justice is a costly article at the best, and the expense caused by the criminal population is so great, no fault can be found with a just expenditure which will eventually save untold thousands to the country. The ideal prison, then, should have at its head a commission of the very best judicial and scientific men the country can produce, men whose knowledge of their subject is of the most complete character, and who are able to study and classify criminals properly, and suggest the rational treatment, or punishment, if you prefer the word, in each case. Under this arrangement, it would be possible to give each criminal the careful study his case demanded, before being allowed to associate with others, and it is very certain that few mistakes would be made.

The instinctive criminals would be forever shut up and kept from society, and the work of reformation, which is, of course, the true work of every prison, could be carried on intelligently and with some hope, especially in the case of the young. Not only that, a proper system of probation or parole could be developed. At present the occasional criminal serves his sentence and leaves prison with the brand of infamy stamped upon him, and while it is true that he has satisfied the demands of the law, he has not expiated his crime, no matter how trivial, in the eyes of the public. A strong man would require an iron will to fight against popular prejudice backed up by our so-called detective system;

a weak man finds it extremely simple to succumb to what seems to him the inevitable, and soon becomes a recidivist of the marked type. The system of probation should involve the finding of a proper situation for the probationer. The result is not uncertain, in fact in Elmira, where one of the few modern prisons is to be found, the percentage of recidivists under this system is extremely small. There the period of probation is generally six months.

I have hinted at the importance of having a highly trained and broad-minded commission at the head of the ideal reformatory. More important still is the necessity of having efficient and well-educated officials to carry out the instructions of these heads. We recognize the marvellous change that has taken place in hospitals for the insane, since the advent of the trained and intelligent nurse, and it is more important still that the warders in charge of criminals should have the most advanced knowledge regarding prisoners and their treatment. As Havelock Ellis suggests, "The criminal in all his manifold variations, with his ruses, his instinctive untruthfulness, his sudden impulses, his curiously tender points, is just as difficult to understand and to manage as the hospital patients, and unless he is understood and managed, there is no hope of socializing him."

The system of solitary confinement so warmly advocated by some cannot be too severely condemned. In Elmira, which we can regard as the nearest approach to the ideal reformatory, the endeavor is to occupy the convicts as completely and intelligently as possible, from the moment of waking until bedtime, leaving little or no opportunity for the development of evil, and not taking away the interest in life. For boys, physical and mental development classes are instituted, and the treatment adopted includes massage, gymnastics, baths, school work, etc., and a carefully regulated dietary restricted to the best requirements of the criminal.

The system, too, of allowing the hopeful criminals to win their way back to freedom, when properly applied, is excellent, as proved by competent observations. As has been well said, the chief aim of the ideal prison is that of being a moral hospital. It is, of course, impossible to more than indicate in a general way the lines along which the advances should be made, as the subject is too large to deal with here. Little has been said about the offences of minor criminals and drunkards. With the first class, providing that the offenders are not of the instinctive criminal class, the suspended sentence is excellent, although it is a mistaken kindness, in fact a grave wrong, with instinctive criminals. Great care should be taken by the magistrates when investigating

the crimes of boys, and if necessary, expert advice called in. This has been done occasionally with decided benefit.

Up to the present Canada has developed slowly and healthily, her expansion has been gradual, and we have escaped the dangers incident to sudden accessions of multitudes of immigrants from the older countries. Our record as a law-abiding people has been enviable, and on the whole the administration of the laws has made the comparison between ourselves and our neighbors to the south a very comforting one. As a matter of fact we have been drifting, and are now becoming blind to a danger that is apparent to any of those who have had much to do with the defective and criminal classes. It is useless to deny the gravity of the situation, and as an ounce of prevention is always better than the proverbial pound of cure, now is the time to face problems that are upon us.

As a general thing, Canadians are satisfied that in the administration of justice, we are ideal, and have little to learn, that when a prisoner has been convicted and punishment meted out our duty to society has been finished. Of course, those who have made a study of penology are well aware that Canada is a generation behind the times as far as the care and treatment of the criminal are concerned. The only explanation of the general apathy regarding the matter is, that we have been living under conditions particularly favorable to ourselves, conditions that will no longer prevail. The difference between Canada and the United States in the matter of crime is ordinarily explained by the assumption that our laws are better, and are administered with greater dignity and promptitude. There is something in that, in fact in some notable cases of insanity there has been far too much promptitude, and judicial errors of the greatest kind made—errors that in a few years will be impossible. As a matter of fact, we are years behind some of the States, notably New York, in the care and treatment of the criminal, and we have not had to face the problems that are encountered there. Up to the present the United States have been the Mecca for all the defective and criminal classes of Europe, and the shums of the larger American cities will always prove an attractive haunt; but our time is coming.

It is a question for the politicians to argue as to whether it is advisable or not to open our country to hordes of subsidized immigrants, but certain it is, that when the tide of immigration turns this way as it is now doing from Europe, we shall know more about the criminal than is the case at present. Even now it is extremely interesting to study the old world degenerates collected in our institutions, and one marvels that such specimens were allowed to reach our shores. In the anxiety to add to the

population, the doors have been practically wide open, and when a degenerate has once obtained a foothold here, a very brief residence makes him secure, until he commits a crime or develops insanity, in either case the result being that he becomes a burden upon the State which owes him nothing. We should take warning by the experience, which has resulted in such a serious condition of affairs in the United States, a condition referred to by Dr. Allison, of the Mattewan Asylum for Insane Criminals, in New York State, in an address read at the Medico-Psychological Association in Washington last June. I shall quote briefly from his paper, as the quotation contains suggestions that should at once be adopted by Canada, if she is to escape to even a slight extent.

Speaking of the care of insane criminals, he says: "Criminals are a great burden upon the community everywhere; many of them are of alien birth, and many others of foreign extraction. Congress has recently enacted measures amending the restriction of immigration of the defective classes, which interposes a bar to lunacy and crime coming to us from foreign lands. America has long been a refuge for persons of this class. Some of them come of their own volition; others are assisted by members of their own family, by prison associations, by benevolent and other societies, and at times by municipalities. Some of these immigrants are habitual criminals; others, who are poorly equipped mentally, soon become criminals. Numbers of such cases have come directly under our own notice. Discrimination is required to sift from prisons all such inmates, particularly degenerate examples of European origin. An important feature of the new law is the extension to three years of the period of probation, during which insane or criminal aliens who have landed in contravention of our laws may be returned to their native countries. This feature of the Act affords opportunity for investigation into the mental condition, and the antecedents not only of inmates of prisons, but of all institutions for the defective, dependent and criminal classes. Provision is made by which the Government may from time to time obtain information from the officers of penal reformatory or other institution concerning aliens in their custody. Agents in the Government service may be detailed to secure facts from such institutions through which the enforcement of this law may be facilitated."

Just as Dr. Allison says, it is a notorious fact that defectives of all classes are shipped to America as an easy solution of a serious difficulty, and if I could show you many of the degenerates I have met who came here under the name of desirable immigrants, you would marvel that they could have passed the most

perfunctory inspection, so obvious were the ear-marks of degeneracy.

Those of the insane type do not constitute the greatest menace, as it is the instinctive criminals that are most to be feared, not only for themselves, but for what they are likely to hand down as a legacy in the way of degenerate descendants. If we consider the matter alone from the dollars and cents standpoint, the cost to the State even for a small colony of degenerates will in the end be appalling.

In the photograph which I have of some of the degenerates in the Mattewan State Hospital, some seventy persons are shown from Central and Southern Europe alone. These seventy persons will cost the State something more than two hundred dollars per capita annually, and as they all probably belong to the incurable class, and will easily live on the average ten years each, here we have at once an expenditure of \$140,000 in this one small institution, an expenditure that should not be incurred by the State. That is not the whole question though. How many defective and criminal children will these degenerates leave? Those of us who know what a part heredity plays in the development of insanity and crime can appreciate the magnitude of the calculation.

Probably the most instructive history of the possibilities and cost of a criminal family is the much-quoted Jukes incident. Havelock Ellis details this as follows: "The so-called Jukes family of America is the largest criminal family known, and its history, which has been studied carefully, is full of instruction. The ancestral breeding-place of this family was in a rocky inaccessible spot in the State of New York. Here they lived in log or stone houses, sleeping indiscriminately round the hearth in winter, like so many radii with their feet to the fire. The ancestor of the family, a descendant of early Dutch settlers, was born here between 1720 and 1740. He is described as living the life of a backwoodsman, a hunter and fisher, a hard drinker, jolly and companionable, averse to steady toil, working by fits and starts. This intermittent work is characteristic of that primitive mode of life led among savages by the men always, if not by the women, and it is the mode of life which the instinctive criminal naturally adopts. This man lived to old age, when he became blind, and left a numerous more or less illegitimate progeny. Two of his sons married two out of five more or less illegitimate sisters—these sisters were the 'Jukes.' The descendants of these five sisters have been traced with varying completeness through five subsequent generations. The number of individuals thus traced reaches 709, the real aggregate is probably 1200. This vast family, while it has included a certain proportion of

honest workers, has been on the whole a family of criminals and degenerates, of vagabonds and paupers. Of all the men not twenty were skilled workmen, and ten of these learned their trade in prisons; 180 received out-door relief to the extent of an aggregate of 800 years; or making allowance for the omissions in the record, 2,300 years. Of the 709, there were seventy-six criminals committing 115 offences. The average of prostitution among the marriageable women down to the sixth generation was 52.40 per cent.; the normal average has been estimated at 1.66 per cent. There is no more instructive study in criminal heredity than that of the 'Jukes' family. The total cost to the State of this family, as a result of their criminality, is a million and a quarter dollars, and the end has not been reached."

I am aware that the dollars and cents question is not the only important one, but it is the one that appeals to the average taxpayer, and when we think how great already is the expenditure in connection with Provincial and Federal institutions, it is very evident that every available means should be adopted to lessen, rather than to add to, the load we should carry. As an illustration of the folly of holding the door wide open to foreign defectives, I can point to one imported criminal, who was deliberately shipped to Canada. His advent brought misery and tragedy, and cost the country, it is said, more than \$50,000. Under a rigid system of inspection, this criminal could not have reached here, as his record in other countries was well known. However, we are not lacking even in Canada in historical proof of my contention that we cannot be too careful in framing laws to enable us to get rid of defective and criminal immigrants before they have had time to do much harm.

In the early days of the settlement in Ontario what was called the *seum* of certain districts in the older countries obtained a foothold here, and it is notoriously true that the cost of these degenerates to Canada has been incalculable. From certain facts that came into my possession, I suspected that a reading backward of some of these family histories would prove very instructive, and the supposition was quite correct. My own observations have been confirmed by the researches of others.

To illustrate my point in a practical way: Kingston is as you all know a long-settled district, unaffected to any extent by immigration, and yet within the last ten years the Government has had to contribute no less than \$72,875.83 for the maintenance of defective immigrants, who would not have been permitted to obtain a foothold here if satisfactory alien laws had been in force. There were sixty-three of these defectives, seventeen of whom still remain with us.

Their maintenance rate was only calculated at \$130 per

annum, and yet the total amount is rather surprising. If that is already the case in one small institution, comparatively remote from the direct effects of immigration, what must be the total amount for the whole Dominion? What is it likely to be in the near future unless we adopt stringent protective legislation?

Of course it will be urged that if we are to have immigration on a great scale we must naturally expect to get a certain proportion of degenerates. This is correct as far as it goes, but does not represent the whole truth. It must always be the case that the failures in life will make a large showing in emigration returns, and while as a rule the sturdy agriculturists of the British Isles furnish a most desirable element to add to our population, the same cannot be said of the mental and physical weaklings reaching us from the slums and poorer quarters of overcrowded cities. These are not the greatest menace though. We have most to fear from the importations from Central and Southern Europe. The types of degenerates I have seen from these quarters far outrank anything of the kind I have met elsewhere, and furnish a unique study in themselves. The social conditions developing these degenerates are well understood, and it is a debatable question as to whether we are not making a serious mistake in giving encouragement to immigration from this part of the world. The Northern races are far better equipped mentally and physically, and environment has been much more fortunate for them. The practical point though is, how are we to minimize the danger, and make the best of a situation that must prove serious if ways and means are not found to meet it more than half way. Already one Province has realized what it means to support the insane of an alien race. Two years and a half ago, when investigating the affairs of the Provincial Hospital for the Insane in British Columbia, I found one large ward in that institution devoted altogether to insane Chinese, and no doubt a fair proportion was to be found in the penitentiary. Apparently there was no relief from the burden, no law by which these foreigners could be deported to their own country. At that time the per capita cost was \$255 per annum, so the Provincial expenditure for these aliens was no trivial item.

Now I am by no means certain that we can find a perfect means of controlling the situation absolutely, as with our enormous frontier it is impossible to keep the door shut to degenerates and criminals. A far more rigid system of inspection than that in use at present should be adopted—that would exclude the palpably insane and defective, but in addition to this the indigent class of immigrants who show marked evidence of mental disease or defect, or criminal tendency, should be returned to their own country at any time during a residence of two or three years.

This is not an unreasonable proposition, and Federal and Provincial authorities should unite in vigorous action to control the situation as completely as possible.

The public has long ago awakened to the fact, that it pays in the long run to stamp out outbreaks of small-pox, even at a great outlay. No one objects to such expenditure, and the common sense of the thing appeals to all, and yet the ravages of an unchecked outbreak of small-pox are as nothing compared with the misery and expense dependent on the presence in the community of a very small body of degenerates. The proportion of our own weaklings is large enough at present, without being augmented by the addition of Old World specimens.

Surely the question is one that might fairly be taken up by the representatives of the different Boards of Health, and it is with the hope of exciting some intelligent enquiry into the subject that I have ventured to bring it up here.

I am not a pessimist, nor am I an alarmist, but I cannot shut my eyes to things as I see them. The alien degenerate is a spirit we should exorcise just as quickly and persistently as well-made laws will permit us.

THE OPEN METHOD OF TREATING FRACTURES.*

BY F. N. G. STARR, M.B. (TOR.),

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Mr. President and Gentlemen,—Upon more than one occasion I have been consulted by patients with a deformed extremity resulting from a fracture that has either not been properly reduced, or that has not been kept in position after reduction, or that has been in the neighborhood of a joint, and though perfect reduction and union have been secured, yet deformity of the limb has resulted owing to stiffening of the joint.

It seems to me that, when there is difficulty in reduction, or when there is failure to keep the broken fragments approximated, or when the fracture is in close proximity to a joint so that the associated inflammation may lead to ankylosis of that joint, or in fractures of both bones of the forearm where ankylosis of the radius and ulna may occur, the safer course to pursue is to cut down at once upon the fracture and unite the fragments by artificial means. In this way, the length of the convalescence is shortened, subsequent operations—if one succeeds in his asepsis—are avoided and one is able to begin, with safety, passive motion of the implicated joint at a much earlier period.

Of course in fractures near a joint where the bones are superficial this is not as essential, as for example in Colles's fracture, for here one may begin passive motion in a week by carefully steadying the broken fragments between the fingers and thumb, and thus secure an ideal result.

In connection with these remarks I desire to record a few cases in the treatment of which I have adopted the open method.

The first case that I shall mention was in a boy, aged 8 years, who, by falling from a six-foot fence, knocked off the external condyle of the right humerus. The line of fracture extended from the right external supra-condyloid ridge downward and inward through the radial head of the humerus. After some manipulation under chloroform, I thought I succeeded in reducing the fracture, and applied a temporary splint. At the end of five days, when I removed this splint to apply an Aikins, I found the fragment again in its faulty position, with its pointed end threatening to come through the skin. Dr. Peters saw the case with me, and again under chloroform we tried to secure reduction, but failing, decided to cut down upon the fracture. Accordingly, under proper antiseptic precautions, an incision was made over the

* Read at meeting of the Canadian Medical Association, London, August, 1903.



CASE. 2. Showing amount of movement at the end of ten weeks.

posterior and outer aspect of the external condyle, and the fracture exposed. Imagine our surprise at finding the fragment completely rotated upon itself so that the articular surface looked upward and forward. It was with the greatest difficulty, too, that this was brought into its proper position. Apposition of the fragments was finally secured by grasping the condyle with forceps, and using a strong periosteal elevator as a fulcrum. The fragment was then wired in place, the wound closed without drainage, and an Aikins' splint applied. Union by first intention was secured, and at the end of eight days passive motion was commenced, and carried out daily for two weeks, when the splint was removed altogether, and the child encouraged to use his arm. He was given a small pail to carry about, and from day to day additional weight was added so as to secure a good carrying angle at as early a date as possible. The result was very good indeed, for in six weeks he was again riding his wheel and playing ball with the other boys.

The second case, in a female aged 45, was one of fracture of the surgical neck of the humerus, with dislocation of the head, occurring in the practice of Dr. W. A. Sangster, of Stouffville, some eight weeks before. The doctor, after several unsuccessful attempts to reduce the dislocation, very properly brought the broken ends together, and put the limb up in this position, hoping to secure union, and then having the humerus as a lever, he hoped to be able to reduce the dislocation. I am reporting this case, not because it can, strictly speaking, be called a recent case, but to show the advantages of the open method over the usual methods laid down in some text-books. Under an anæsthetic, I endeavored to reduce the dislocation by Koeber's method, hoping for failure lest success might mean a rupture of some of the axillary contents. My hopes were realized in that, at the first attempt at manipulation, the recently united fracture at once gave way—in fact, very little attempt at union had occurred although the fragments were in perfect apposition. With Mr. Cameron's assistance, I cut down by means of an anterior incision, commencing just external to the coracoid process, and carrying the incision downward for about three inches, dividing the skin and fascia. The fibres of the deltoid were then torn apart, and the fracture exposed, while the dislocated head rested under the coracoid. Even now all attempts at reduction of the dislocation failed, consequently it was decided to excise the head. After stripping up the periosteum, and then detaching the muscular insertions, the head was removed without much difficulty. The ragged edges of the upper end of the lower fragment were snipped off, a drainage tube inserted, the wound closed, and an Aikins' splint applied. At the end of thirty-six hours the drainage tube was removed, but for four or five days

a considerable amount of bloody synovial fluid continued to drain away. At the end of ten days, the wound was entirely healed, and before three weeks passive motion was commenced. The patient left the General Hospital at the end of five weeks, and was then able, with some assistance, to put her hand to her forehead, and to carry a small weight in her hand without discomfort. Up to this period there had been no shortening. The last I heard of the patient is that she has a useful arm, and is able to do her housework. (Figs. 1 and 2.)

The third case that I shall mention is a somewhat complicated one, which occurred in the practice of Dr. Richard Raikes, of



CASE 3. — Showing extent of movement of arm at the end of two weeks.

Midland, with whom I saw the case upon the day of the injury. A lad, of 19 years, fell from a lumber yard truck, alighting upon his shoulder. Under an anæsthetic, what I first took to be a dislocation of the head of the humerus was easily reduced, and as easily recurred. A mass was then discovered under the clavicle, but no amount of manipulation would move this. Thinking we had to deal with another case of fracture with dislocation of the head, I thought the best treatment would be to cut down upon the part, reduce the dislocation, if possible, and wire. Consequently, by means of the anterior incision, as already described, I exposed the site of injury. Upon exploring with the finger, I found the lump under the clavicle to be a knob of callus on its under sur-

face, resulting, as I afterward discovered, from a fracture of that bone two years previously. I then turned out the upper end of the lower fragment of the humerus, and found it rounded and burnished. Upon making this discovery, we felt satisfied that we had to deal with a dislocation of a false joint, which would account for the difficulty experienced in keeping the limb in place, when reduction had first been tried. Upon feeling for the



Representing lines of fracture in lower end of humerus in Case 1.

head it was found in the glenoid cavity. By grasping it with a pair of forceps, one was able to satisfy himself of its mobility. Its under aspect was hollowed out, making a socket for the new head. This socket was scraped out to freshen the surface, and from the upper end of the lower fragment a thin shaving was snipped off. The outer surface of each fragment, as far forward, and also as far backward, as possible, was then drilled, and two heavy silver wire sutures inserted, which, when tightened and

fastened, approximated the fragments accurately and firmly. As there was some general oozing, a drainage tube was inserted, the wound closed, and an Aikins' splint applied. The drain was removed at the end of forty-eight hours. At the end of a week, union having occurred, the stitches were removed, and gentle motion tried. The doctor then encased the shoulder, arm, and chest in plaster, and left this for two weeks more, when he commenced passive motion, and carried it on vigorously for another two or three weeks. At the end of seven weeks the patient was doing light work about the mill-yard. Exactly eight weeks after the injury, I was again called to Midland, when the patient met me at the train to show me his arm. I asked if he could use it, when, to my astonishment, he performed adduction, abduction, elevation and circumduction as freely as I could do it myself. He then picked up my heavy grip in his left hand, and carried it three blocks. For such a happy result, Dr. Raikes is to be congratulated, for it is largely due to his attention and perseverance. (Figs. 3 and 4.)

The fourth case is one of a man, aged 42 years, whom Dr. Raikes sent to the General Hospital, suffering from a compound comminuted fracture of the lower end of the humerus of the right side. In order to make out precisely all the lines of fracture, I determined to have the X-ray used, but after waiting for suitable weather for nearly a week, and then meeting with failure, I decided to cut down upon the injured bone, feeling certain that nothing but a stiff elbow could result from any other method of treatment. The fracture is best represented by this bone, Fig. 4.

Accordingly, an incision was made about 2 1-2 inches long, over the lower end of the posterior aspect of the humerus, dividing the skin, fascia, and tendinous part of the triceps, separating the remaining muscular fibres with the finger. Upon exploring the wound, four pieces of bone popped out from between the lower end of the main upper fragment and the upper ends of the main lower fragments, for this lower fragment was split, the fracture extending through the trochlear end of the humerus. The synovial sac, though greatly distended, was apparently intact and was kept out of the way by means of a retractor. Having now only three fragments to deal with instead of seven, I drilled the lower end of the upper fragment at the outer side and at the inner side, from behind forward, keeping my finger in front to avoid injury to the structures in front of the shaft. At corresponding points, each of the lower fragments was drilled, and stout silver wire sutures were inserted and made fast, approximating the fragments accurately. The wound was closed without drainage, and the elbow put up at a right angle on an Aikins' splint, and union by first intention occurred. I did not unite the two lower

pieces by wire, because the other sutures seemed to hold them so firmly in apposition. This, I am free to admit, was a mistake, for at the end of ten days, when I tried passive motion, I felt some grating of these two fragments, and had to refrain from further passive motion for another ten days, until some union had taken



CASE 4.—Showing the extent of movement at the end of two months, before forcible flexion and extension was resorted to.

place. In this way valuable time was lost. However, at the end of five weeks, the patient returned home with a considerable degree of movement at the elbow. He could touch the end of his nose with his finger, and could extend the forearm fully two-thirds of the way to the carrying angle, while pronation and

supination were almost perfect. Under chloroform, the doctor subsequently forcibly straightened the arm, and succeeded in getting a favorable result. (Figs. 5 and 6.)

The fifth case, though not one of recent fracture, fully demonstrates to my mind the wisdom of the open operation as a means of shortening convalescence. When I first saw the case, I suggested the possibility of an operation, but it met with such scant approval that I did not press the matter. It was a case of compound comminuted fracture of the right tibia occurring in a man, aged 55 years, whom I saw for Dr. Machell, during his illness in the summer of 1899. The patient chose the slower plan, and I put up the fracture with Dr. Primrose's assistance on a double inclined plane, but, finding this uncomfortable, I changed to an Edinboro box splint, and swung the limb in a cradle. At the end of six weeks, union was perfect in all but the pointed lower end of one of the middle fragments. In consequence of this he was kept quiet for another three or four weeks, at the end of which time, there still being movement, Dr. Machell cut down over the front of the tibia, snipped off the pointed extremity, wired this fragment to the upper end of the lower fragment, and put the limb up in a plaster splint. At the end of three weeks the patient was up, and has secured a perfectly good leg. Had this course of procedure been allowed at first, I feel certain the length of total disability would have been shortened by half.

I have purposely avoided mentioning cases of fracture of the vault of the skull, in which the open method of treatment was carried out, not so much, however, to secure an accurate line of approximation as to relieve urgent pressure symptoms, because this has already become a well-recognized practice.

It is possible that the day may yet come when the open method of treating recent fractures will be the only recognized practice, though I should hesitate for some time before advocating such a sweeping reform—if reform it would be. It seems to me, though that there are many cases, now treated by means of splints only, in which the result would be better, the convalescence shorter, and consequently the surgeon's gratification greater if the open method was adopted. One should, however, carefully consider the merits of each case before rashly resorting to the knife—a weapon that is decidedly dangerous in the hands of some.

PERSONAL EXPERIENCE WITH ALEXANDER'S OPERATION FOR RETROVERSION OF UTERUS.*

BY H. MEEK, M.D., LONDON, ONT.,

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My personal experience with Alexander's operation for retroversion of uterus dates from February, 1890. During the period intervening between that date and the present time, I have had about 200 cases. From this fairly large personal experience, I shall consider briefly in the time at my disposal: (1) The class of cases suitable for the operation; (2) Advantages of this operation over other methods of treatment; (3) My results; (4) Technique of operation.

1. I would classify cases suitable for the operation under two heads: (*a*) simple uncomplicated retroversion with free mobility of organs; (*b*) some cases complicated by disease of appendages, non-suppurative, and where adhesions are not too dense; in such cases, after breaking up adhesions, and dealing with complications through the dilated internal inguinal ring, the ligaments can be shortened and fixed in the usual way. All cases, however, of suppurative disease of appendages or non-suppurative cases with dense adhesions, binding organs to neighboring viscera, as intestine or bladder, are unsuitable cases for this operation, as such conditions can be dealt with, with greater safety, through a median abdominal incision.

2. *The Advantages of the Alexander Operation over other Methods of Treatment.*—In simple uncomplicated cases of uterine retroversion suffering from symptoms calling for treatment, there is a choice between treatment by pessary and some one of the surgical operations devised for the radical cure of the displacement. The objections to the pessary treatment are: (1) At best it is simply palliative—I have never seen a cure by the pessary; (2) the instrument can never be worn comfortably for any length of time; (3) it is liable to get displaced and cause ulceration of mucous membrane of vagina, and even fistulous openings into rectum and bladder; (4) it may be, and no doubt has been, a factor in causing infection of uterus, appendages and peritoneum. On account of these objections I would advise surgical intervention in preference to the pessary treatment in the vast majority of cases, and in my opinion the Alexander operation should be preferred to other surgical methods devised for a radical cure. Over the operation of ventro-suspension, which I consider the best of all the methods where a median abdominal section is

*Read at meeting of the Canadian Medical Association, London, August, 1903.

made it has the advantage of not being attended with any of the risks from this operation, viz.: (1) the slight risk of wounding the bladder with incision or with the suspension sutures; (2) slight subsequent risk from an abnormal ligament between uterus and abdominal wall; (3) the risk of interference with development of uterus during gestation and with the expulsive power of uterus during parturition; (4) the slightly increased risk attending all operations where abdomen is opened in median line. Over the method of shortening the ligaments after abdominal section, it has the advantage of greater safety. Shortening the ligaments through vaginal route is attended by risks to the future health of the woman from more or less infection of pelvic peritoneum, which cannot well be avoided, and from accidental injury to bladder which may occur. The Alexander operation is free from such risks. I have had no personal experience with this last method of operating for retroversion of uterus, but in one case in which this operation had been performed, I was called upon subsequently to open the abdomen for pelvic and abdominal pain; the tangled matted condition met with, the result of infection of the pelvic peritoneum, did not tend to impress me favorably with this method of treatment.

3. *My Results.*—(1) There has been no death among my list of cases. I may therefore, I think safely, say, that with the Alexander operation there should be no mortality. (2) If the case is a suitable one, and the operation properly performed, there should be no recurrence of the displacement. Among my earlier operations, when our technique was not what it is now, infection and suppuration occasionally occurred, and in one or two cases was followed by recurrence of displacement. Among my earlier operations, I have also had recurrence in one or two cases not suitable for the usual operation, in which there were slight adhesions holding the uterus back. In all such cases, both uterus and appendages should be properly freed before shortening and fixing ligaments, otherwise recurrence will take place no matter how trifling and insignificant the adhesions may appear to be. With a few exceptions from the causes I have mentioned, the cure of the displacement has been permanent. (3) I have followed several cases during subsequent pregnancy, parturition, and the puerperium. The only sensation directly resulting from the operation I have heard patients complain of, during gestation, was a sensation of tightness over the region of inguinal canals. There has been no interference with the development of uterus during gestation, and no interference with parturition. During the puerperium, involution goes on rapidly and normally, and there is no tendency to recurrence of displacement. In cases of retroversion not operated on, which become pregnant and go to full

term, the displacement almost invariably recurs after delivery, during the process of involution. In such cases involution is invariably slow and imperfect, shewing in this a marked contrast with cases in which the operation has been performed. For this reason alone I would advise the operation as a measure favoring more rapid and complete convalescence after parturition. (1) I have not seen hernia in the cicatrix follow in any of my cases, and I do not think it should follow if the operation is properly performed. I have in several cases cured small and large inguinal hernia, complicating the condition for which the operation was performed.

4. *Technique of Operation.*—The intestinal tract should be cleaned out on the day preceding that set for the operation by purgatives and enemas. A hot soap and water bath should be given the evening before the operation. Abdomen, pubes and vulva should be prepared by shaving and cleaning with soap and water and bichloride solution, and a bichloride pad applied. Vagina should be prepared by swabbing out with green soap and water, a bichloride douche followed by plain water douche and a packing of iodoform gauze inserted. At the operation the uterus should be curetted as the endometrium is in most cases in an abnormal condition. If the vaginal outlet is relaxed from old lacerations, this should be corrected by a plastic operation. After the uterus and pelvic floor have been attended to, the uterus is put in normal position, if freely movable, and a gauze packing inserted in vagina. The operation for shortening ligaments should then be performed. Taking the pubic spine as a guide, an oblique incision is made over the external ring, and inguinal canal on one side down to the aponeurosis of the external oblique. The pillars of the external ring are carefully exposed, particularly the external pillar. This is of importance, for in some cases the external ring is very small, scarcely any ring at all, and in some cases there are two or more openings, and the wrong opening may be mistaken for the ring, and time wasted in searching for the ligament, or the parts may be so disarranged in the search that the ligament cannot be found. I have never yet failed to find the ligaments. At the external ring there is only one place for the ligament, and if carefully looked for, it may invariably be found coming out over the external pillar usually accompanied by the genital branch of the genito-crural nerve. Lying anterior to the ligament. In order to find the ligament after the external pillar is exposed, the fascia between the pillars should be nicked and with the finger slight pressure made on the aponeurosis just outside of the external pillar, slightly everting this pillar when the ligament may be seen bulging a little on the inner side of pillar. Avoiding the nerve the bulging ligament is caught with blunt

forceps and gentle traction employed. Traction should be gentle, because at this point the ligament is small and spread out fan-like, some of the fibres passing out over the pillar, while others pass backwards into the floor of the canal. The sheath surrounding ligament is adherent to the floor and aponeurosis. If strong traction is made, the sheath is torn and the delicate fibres of ligament broken, and the stump may retract into the peritoneal cavity, thus complicating the operation considerably. By gentle traction and the use of a small blunt hook or director the ligament can usually be easily separated and drawn out of its sheath without opening up the canal. When once separated from its sheath, it comes out quite easily, getting larger and resembling in appearance a frog's leg. If there should be any difficulty in freeing ligament at external ring, the canal can be opened up when the ligament can be quite readily freed. It should be drawn out as far as possible, usually four or five inches. After ligament on one side has been gotten out, the ligament on the other side should be gotten out in the same way before proceeding further with the operation. The peritoneal pouch accompanying the upper thick portion of ligament should be peeled back before the ligament is fixed.

In cases where it is thought advisable to explore pelvis intra-peritoneally, the canal should be opened up, the peritoneal pouch accompanying ligament opened, the finger introduced and the pelvic organs examined. Any posterior uterine adhesions can be broken up, the ovary and tube if necessary can be drawn out through the ring, and any pathological condition attended to. The opening in peritoneum can then be closed by a running suture of cat-gut, and the ligaments fixed in the usual way.

In these cases, however, to prevent any risk of subsequent hernia, the canal should be closed as in Bassini's operation for inguinal hernia. Ordinarily, the ligaments may be fixed by two or three sutures of fine chromic gut passed through pillars of ring and ligament, care being taken not to include the nerve, and not strangle the ligament. These sutures, when tied, bring together the pillars of the ring, fixing the ligament between pillars. The external wound may be closed by a running suture of cat-gut in deep layer of superficial fascia, and another running suture in skin.

Before closing the external wound, the excess of ligament may be cut off, any oozing from stump checked, and the stump then buried in the superficial fascia at lower angle of wound, or the excess of ligament may be doubled back and sutured in wound. A gauze pad is applied over each wound and held in place by strips of plaster, and a T bandage so arranged as to keep up moderate pressure over wound.

I do not consider a pessary necessary after operation if patient is kept in bed three weeks. The vaginal gauze packing is removed about the third or fourth day. Care in lifting should be exercised for three months.

If, during the operation, either ligament should accidentally break, and the stump retract into peritoneal cavity, the canal should be opened up, the deep epigastric vessels exposed, and the peritoneum opened above and to outer side of these vessels. The retracted stump can then be caught, brought out and fastened, and the peritoneum and canal closed in the way mentioned.

In several cases I have broken the ligament at lower terminal end, but retraction of stump into peritoneal cavity occurred in only one of my cases. Such an accident, however, is in every case, in my opinion, the fault of careless manipulation in getting the ligament out.

330 Queen's Avenue.

Proceedings of Societies.

CLINICAL SOCIETY OF THE NEW YORK POLYCLINIC MEDICAL SCHOOL AND HOSPITAL.

A MEETING of the above Society was held on December 5th, 1903, the President, Dr. James Hawley Burtenshaw, in the chair.

Amputation of Breast Demonstrating Triangular Dressing of Arm.—Dr. J. A. Bodine presented three cases of amputation of the breast for carcinoma, in which the arm had been dressed during the healing period on a triangle holding the upper arm at right angles to the body. He called attention to the consequent freedom with which the patients could use their arms. He had been using this dressing in all such cases for the past three years. An isosceles triangle, made of light splint-wood held in position by rubber adhesive strips, is so placed against the side of the chest that the upper arm is at right angles to the body, while the forearm in supination rests along one side of the triangle with the hand resting upon the hip. The triangle presses along the body between the line of incision for removal of the breast and the posterior puncture made for the drainage tube. The arm being in this position, the patient is perfectly comfortable while in bed and also while walking about. Adherence of the skin flap and scar to the under surface of the arm after enucleation of the axillary contents is an inch and a half to two inches nearer the shoulder end of the arm when dressed in this position than it is when bound against the chest. It is this difference in position of attachment of the scar and skin flap to the arm that gives such freedom from cicatricial contraction following amputation of the breast.

Dr. R. H. M. Dawbarn said that he had employed the method demonstrated by Dr. Bodine several times. It is more comfortable because the abduction of the arm slides the scar so that it does not adhere to the region of the vein nor the main lymphatics. Patients at times have been made very miserable after amputation of the breast by swelling of the arm, due to adhesion of the scar, the forearm and arm becoming large and edematous, and annoying the patient for a long time. He avoids it, partly by carrying the incision up the middle or even posterior part of the axilla, although the main dissection is sharply forward in the anterior portion of the axilla where the main vessels lie.

There is only one muscle which can take the place of the pec-

toralis major and minor, both of which must be entirely removed in the modern operation, and that is the deltoid. It is wonderful how this muscle hypertrophied, and being inserted into the outer third of the collar-bone, with a very poor leverage, how it accomplishes its mission. In the case of women who have very weak deltoids (the reverse of those shown by Dr. Bodine), it has been part of his regular operation of late years to dissect free from the clavicle one inch of the anterior edge of the deltoid, and to carry it inward as far as it will easily go, and then to sew it to the stump of the pectoralis major. That muscle, in course of time, becomes hypertrophied, and it helps a great deal; but in cases in which this operation is performed, it obviously would not do to use the isosceles triangle, with its necessary abduction of the arm. In the technique just described, as to the deltoid, the cephalic vein is liable to cause trouble, and he generally ties it off, but this may not be necessary if great care is taken. It is only when the axillary vein is involved in the cancerous growth that saving the little cephalic vein becomes a matter of importance.

Extirpation of the Jaw.—Dr. Bodine also presented two cases of face surgery to illustrate two practical points which he considers important in the treatment of these cases. Control of hemorrhage in all surgery above the level of the cricoid cartilage is accomplished by rapidly making an incision down to the carotid artery supplying the area to be invaded, passing an ordinary rubber band that has been boiled, around the vessel, and having it pulled taut by an assistant, thus as effectually controlling the blood-current as in the case of an Esmarch bandage around a limb. The rubber is withdrawn after the operation is completed without having done any damage to the walls of the blood-vessel. He had followed this plan many years in excisions of the tongue or jaw and in other bloody work about the head or face. The second point that the doctor wished to emphasize was that wounds of the face made by the surgeon should never be dressed with gauze. If no dressing whatever is applied, and the wound is exposed to the atmosphere, it heals *per primam*. Dressings applied to the wound usually become saturated, either with tear or with saliva, thus certainly infecting the line of incision.

One patient presented to the Society had carcinoma of the superior maxilla. A wide removal was practised, the hemorrhage being controlled as stated above. He did not lose more than a teaspoonful of blood during the operation, suffered no shock whatever, and on the third day after operation was permitted to walk about the ward.

The second case was one of removal of the left half of the upper lip, the gap being filled in by a plastic manœuvre. The wound had healed *per primam*, no dressing having been applied.

Fracture of the Patella.—Dr. Bodine showed a case of fracture of the patella, in which primary suture of the capsule had been practised. He said that in fracture of this bone the open operation of suture of the capsule is always to be preferred to treatment by splints. It is impossible to obtain bony union with perfect joint function in any other way than by open incision. The fringe of the fibroperiosteal capsule invariably drops between the broken margins of the patella, effectually preventing bony union. In addition, a blood-clot forms, which becomes organized and fixed. The only objection one can bring against the open operation is the possibility of sepsis. This can be avoided with almost absolute certainty, as illustrated by the patient shown, who was operated on without the fingers of the operator going near the wound, only four instruments being used. The entire operation can be performed in fifteen minutes, without any pain whatever, and with the use of one-fourth of a grain of cocaine. After incising the skin the blood-clot is washed away by a stream of warm salt solution, the ruptured capsule is picked up and sutured with kangaroo tendon, and the skin incision closed by a sub-cuticular suture. A posterior splint is then applied, and the patient returned to bed. It is not always necessary to enter the general articular cavity of the joint. The posterior reflection of the general synovial membrane is sometimes so high up on the posterior surface of the patella that the line of fracture is below it, and the general articular cavity escapes. The patient had been operated on four weeks previous to the meeting, and was able to flex his knee-joint nearly to its full limit. In two weeks more it was to be expected that the motion of the joint would be perfect.

Dr. Dawbarn opened the discussion of Dr. Bodine's cases by saying, in regard to the extirpation of the jaw, that he differed from Dr. Bodine as to the wisdom of never dressing a face wound, as he thought that an occasional stitch abscess, due to exposure to dust, might be prevented by the use, for instance, of sterile gold-beater's skin court plaster, one of the best of dressings. Lately he had modified the Ferguson incision in these cases, carrying it distinctly below the orbital plate, as, if carried into or closely below the lid, a certain degree of ectropion will result. The lower the scar, the safer the operation in this respect. He believed in a preliminary operation for control of the external carotid in every severe operation about the face, such as excision of the jaw, and was convinced that many deaths from shock would not occur if this procedure were carried out.

Regarding the fracture of the patella, he said that if it were his own patella, he would not submit to primary suture, but would have it treated by splints. He thought a close, fibrous union as satisfactory for practical purposes as bony union, and the element

of risk much less, for some slight risk exists, even at the hands of the most rigid aseptician. He differed with Dr. Bodine in regard to the falling downward of the capsule between the bones being the chief cause of non-union. He thought the main obstacle was a bulging forward of the loose synovial membrane between the two fragments. The bones could not unite, of course, through this membrane.

The Chairman, Dr. Burtenshaw, said that he well remembered the first case of fractured patella that came under his care. He brought the two pieces of bone together by means of adhesive plaster applied to the anterior aspect of the leg and thigh, bound the limb to a splint, and kept the patient in bed for the better part of three months. The result was perfectly satisfactory. He thought the danger of infection of the knee-joint by the open method very pronounced, but no greater, in the hands of a competent surgeon, than in many other wounds.

Dr. W. H. Luckett said that he did not think it best to omit the application of dressings to face wounds. He is in the habit of applying a wet dressing to all primary wounds of this character, not so much for its antiseptic effect as for its mechanical action in preventing too early sealing of the edges, with consequent accumulation of serum and blood in small pockets, which are favorable points for the growth of bacteria.

With regard to quadriceps muscle, he thought it helped to keep pieces of fractured patella apart, as well as certain tissues both in front of and behind the bone. He had never seen a synovial membrane come between the fragments from behind; in fact, the normal position of the membrane would prohibit this action. An absolutely bloodless field is necessary for a successful outcome of the operation, as one reason for adoption of the open method is to remove the fluid and blood from the sac, and from between the two pieces of bone.

Dr. Alexander Lyle said that he had operated by this method in three cases, and with excellent results in two. In the third ankylosis of the joint complicated recovery, but this was corrected under general anesthesia.

Dr. Victor Pedersen said that it is a well-established fact that there is no synovial membrane behind the patella in the human being. It stops at the margin of the patella, and behind it extends only as a modified membrane. Probably the structure which would interfere most frequently with union of the fragments would be the capsule.

Dr. Bodine closed the discussion by saying that the suggestion of interference with union by the general synovial membrane was entirely new to him, and from his knowledge of the anatomy involved, he did not see how it was possible. He did not think it

wise to irrigate the general articular cavity of the joint at time of operation. The irrigation fluid would produce more damage than a moderate amount of blood effusion. It is only necessary to wash out the blood-clot from between the two broken pieces and to suture the capsule. Operations should not be undertaken before the third day following accident, during which time all oozing of blood from the broken surfaces has stopped, and the application of the tourniquet is unnecessary; in fact, it is in the way.

Encephalocoele.—Dr. Lyle presented a child, born April 14th, 1903, of healthy parents, which at birth had a tumor measuring one inch in diameter by one-half inch in depth above the nose and between the eyes. Through the courtesy of Dr. Whit, he was asked to see the child, and he advised immediate operation. On April 17th, three days after birth, the baby was placed under chloroform narcosis, and a longitudinal incision was made over the tumor and the frontal bone. The flaps were retracted, the sac dissected free, and the contents easily withdrawn. Two small horns of the sac extended down into the nares. After the dissection was completed, it was found that the absence of bone corresponded in size and shape exactly to that of a silver quarter of a dollar. To cover this opening and to prevent a recurrence of the protrusion, a corresponding amount of periosteum was raised from the frontal bone, turned on its pedicle and united with catgut to the margin of the ring. The skin was likewise sutured, a firm compress of gauze applied, and the head bandaged. The result was only fairly gratifying, and after a month a truss with double water-pads shaped like the finger tips was made and worn constantly. The present condition of the child is satisfactory. The periosteal flap is becoming more rigid, and the bone is filling in, while the child's general and mental condition is excellent.

Appendicitis with Complications.—Dr. L. J. Ladinski showed a girl, 18 years old, on whom he had operated for appendicitis. He said that when he first saw the patient, it was impossible to make a diagnosis. A second examination a few days later revealed the presence of a large fluctuating tumor in the pelvis, posterior and adherent to the uterus, but nothing abnormal was found in the iliac fossa. An incision was made in the median line. The tumor was found to consist of a mass of hypertrophied omentum, to which a coil of intestine and the inflamed appendix were intimately adherent. In the centre of the mass was a large collection of pus. The tip of the appendix and the coil of the intestine were adherent to the walls of the posterior cul-de-sac, and because of the gangrenous condition of this portion of the gut, about six inches of it were incised and a Murphy button inserted. The appendix was removed, and the adherent omentum

excised, and the pelvis and abdominal cavity drained from above. The patient made a good recovery after a protracted convalescence. Four weeks after the operation she developed a mastoiditis on the right side, and the bone was incised and scraped.

He also presented a patient with a large anterior labial hernia. He said that there are two varieties of labial hernia, the anterior, which is similar to the scrotal hernia in the male, and the posterior, in which the hernia descends either in front of or behind the uterus into the vagina and labia. Labial hernia must be differentiated from fibromata, sarcomata, or cysts of the labia.

Immunity.—The paper of the evening was read by Dr. F. M. Jeffries. It was a fifteen minute *resume* of the investigations culminating in our present ideas of immunity. The paper opened with definitions of immunity and infection, and then described and classified the varieties of immunity.

After classifying the means by which immunity may be acquired, the speaker proceeded to a discussion of the production of toxins and antitoxins, and the statement was made that when the problem of the production of antitoxin is solved the problem of immunity will also have been solved. The subjects of hemolysis and bacteriolysis were briefly gone over, and then the two chief theories of immunity were explained, viz., Metschnikoff's theory of phagocytosis and Ehrlich's side-chain theory. It was stated that neither of these theories explains all the phenomena of the subject, although they have each added materially to our proper understanding of the same. Other conditions than those explained in these two theories must be taken into consideration.

The paper closed as follows: "To sum up, the processes of immunity are exceedingly complex, and there is no theory yet advanced which satisfactorily meets the requirements of a thorough explanation. The end is only attained by the activities of all parts of the body, the cells as well as the fluids. Nor must we lose sight of the fact that the bacteria themselves are subject to variation, as an example of which may be cited the colon bacillus, the normal habitat of which is the intestinal tract, and which probably has to do with the processes of digestion, yet let the proper conditions be supplied, and it gives forth its poison, that is to say, becomes pathogenic; and finally, we know that many or perhaps all bacteria produce in their growth enzymes which are bacteriolytic in themselves." A number of articles in English dealing with the subject were cited.

Dr. Albert Kohn opened the discussion of Dr. Jeffries' paper. He said that Metschnikoff studied the white cells. The origin of his work shows how laborious it must have been, and it is wonderful how his theory of phagocytosis was gained on a theoretical basis, working on the lower organisms. He studied the exoderm,

the endoderm and the mesoderm; the workings of this layer were to a certain extent of the same nature as those of the endoderm, that is, of a digestive type. He then began to prove his conclusions on marine animals, inserting foreign bodies in order to see what the action would be. He found that irritation was caused by what seemed to be attempts at digestion. Later, he modified his primary conclusions that the phagocytes were the only bodies concerned in the digestion of the bacteria and their toxins. His theory was accepted until Bouchard brought forward the theory that it is not the phagocytes that digest the live bacteria; that after their destruction they carried away their dead bodies.

As to the question of susceptibility, according to Ehrlich, all consideration of such outside factors as hygiene, traumatism, etc., must be omitted. If we have receptors which in the one set of cells will unite with certain parts of the toxins the haptophorus atoms, these receptors already exist, and they cannot be influenced by traumatism, hygiene, etc., unless the receptors are changed, decreased or increased by those outside factors. The fact that the alexin bodies can be destroyed by heat, a fresh supply of sear added, and the properties of the alexin bodies return, proves that the heat destroys the alexin.

Dr. James J. Walsh said that the subject of immunity was usually considered very complex. In reality, however, it is not more involved or inexplicable than is the simple matter of solutions. We pour sugar into water until it will not receive any more, but the same water will then take up a large amount of salt, and after it has become saturated with salt it will take up various other substances. A child suffers from scarlet fever and will not take the disease any more, but will, if exposed, take mumps or measles. It is as if the cells became saturated with the toxins of one disease after another. The first step in immunity, as regards our modern knowledge of the subject was taken by Pasteur when he demonstrated that chickens at the normal temperature would not contract anthrax, though if their temperatures were reduced to that of the animal in man, they were liable to anthrax. The six or eight degrees of higher temperature produced a natural immunity to the disease. In the light of Ehrlich's theory of immunity depending on the number of side chains or cells, one is tempted to wonder whether more side chains exist at the higher than at the lower temperature, and whether a chicken's immunity could be destroyed by a series of changes of temperature. As a matter of fact, Ehrlich's and Metschnikoff's theories are not so far apart as has often been thought. The protective substances in the blood and cells, according to Ehrlich's theory may well be supplied by the activity of the phagocytes.

The first immunizing process ever invented was Jenner's

vaccination. During the past week, Dr. Walsh said that he had been with Dr. Calkins, of Columbia University, who was working on the protozoon, supposed to cause smallpox. This protozoon occurs also in vaccinia. In the case of vaccination, however, the parasites invade only the cell bodies, while in smallpox they invade the nuclei of the cells, grow much more luxuriantly, and after a time invade the whole body, thus producing a generalized septic condition. In recent years we have come to realize as the result of studies in immunity, that babies who are fed on mother's milk are better protected against contagious diseases than are those artificially fed. The principal reason for this is that most mothers have had the ordinary diseases of childhood, and enjoy immunity from them. Immunizing substances occur in their milk, and are transferred to the child during the nursing. This constitutes another reason why mothers should be encouraged to nurse their offspring, and not allowed to neglect this sacred duty unless there is some absolutely necessary reason.

THE FOURTH QUARTERLY MEETING OF THE PROVINCIAL BOARD OF HEALTH.

THE Provincial Board of Health commenced its fourth quarterly meeting, at 2 p.m., on November 18th, 1903, at the Parliament Buildings. Those present were Dr. Kitchin, St. George, Chairman; Dr. P. H. Bryce, Toronto, Secretary; Dr. Cassidy, Toronto; Dr. Oldright, Toronto; Dr. Boucher, Peterboro'; Dr. Thompson, Strathroy; Dr. Douglas, Cobourg.

Dr. Bryce reported that the Province had been remarkably free from common endemic diseases, the deaths numbering only 1,992, or 12.5 per 1,000. The death rate from consumption was lower than usual, but nearly double all the rest. Smallpox was almost wholly absent, but diphtheria, in its distribution rather than its frequency, was ominous of an increase when the schools opened, and the result had been as feared. The returns for October to date from 52 municipalities reporting show 464 cases and 54 deaths, against 240 cases and 30 deaths in 38 municipalities in September, and 122 cases and 24 deaths in 27 municipalities in August. Reports during November indicate its continued appearance. The local health authorities seemed to be more than ever awake to their responsibilities. In Toronto the cases increased from 51 in August to 118 in October, with 14 deaths. Of 770 cases up to October 31st in Toronto, 445 were treated in hospitals, and the death rate was 12.72. The extension of the Isolation Hospital is expected to be completed in three months'

time. A medical inspector of schools has been appointed, whose duty it will be to follow up the suspects from the school-rooms.

In Guelph 9 cases of diphtheria were treated in hospital, without any deaths. In cities and municipalities where isolation hospitals do not exist the opposite story is told, and the increase of fatal cases of diphtheria has been marked.

In London, one of the best cities from the standpoint of site and sanitation, a number of fatal cases occurred in January and February, after which cases occurred, at first mild but almost steadily increasing in virulence. In June there were 23 cases and 1 death; in July 35 cases and 2 deaths; August, 18 cases and 4 deaths; September, 39 cases and 4 deaths; October, 94 cases and 8 deaths.

London had the worst experience in Ontario, but is now getting along better, with an isolation system of tents.

In Chesley a bad outbreak occurred. There were 23 deaths within thirteen days. The disease was spread principally by milk sold from the infected house before the local physician had learned the nature of the disease.

The principal cause of infection in diphtheria, Dr. Bryce said, was undoubtedly the games played by children at school. They played together, and one child with an infected throat, by kissing one other, might cause a large outbreak.

In Ottawa, out of 49 deaths in 319 cases, 9 occurred in January, when only a part were treated in hospital.

Scarlatina had decreased during the late summer months. Local Boards of Health were awakened by last winter's outbreak and were now adopting precautionary methods not formerly used. Typhoid has been remarkable for its absence.

Dr. C. A. Hodgetts, Provincial Medical Health Inspector, submitted a quarterly report upon smallpox. There had been a marked decline for the three months ending September 30th. The monthly returns were: July, 29 cases and 1 death in 14 municipalities; August, 15 cases and 1 death in 4 municipalities; September, 10 cases and no deaths in 2 municipalities. The total was 54 cases and 2 deaths in 17 municipalities. In 7 municipalities there was only 1 case each, showing the efficacy of the steps taken to prevent the spread of the disease. The outbreaks had been due in nearly every instance to mild cases infected at points outside the Province, some in Quebec and some in adjoining States. In every case with which he dealt he found no evidence of vaccination. It was as difficult to enforce vaccination now as it was five years ago. The indifference of the public was lamentable, and the present law was unwieldy. Dr. Hodgetts complained that those in high places often opposed vaccination, and he thought that if there was to be any progress made in stamping

out this disease some measures should be adopted to enforce vaccination in our schools and workshops. The indications for a general outbreak of smallpox this winter, he said, were not strong, though one centre in Frontenac, Lennox, and Addington, and adjoining townships existed in which he thought there had been infection undiscovered since last winter's outbreak.

A motion was carried that the Secretary communicate with the Minister of Education, with a view to securing, if possible, his co-operation in an effort to improve the ventilation and general sanitation of school buildings.

The Board met again at 10 a.m., on November 19th.

The morning was taken up in reading a number of communications from local boards of health. Mr. E. Mallon Davis, C.E., of Berlin, and Dr. Varden, M.H.O., of Galt, presented the plans for a system of sewerage for Galt. The system provides for a septic tank and coke beds, at an estimated cost of \$20,000. The system was passed by the Board.

The Board then took up the plans presented by Mr. Speakman, C.E., for a waterworks system for the town of Whitby. The scheme provides for filtration at the lake shore through the sand, and received the Board's approval.

In the afternoon the Board took up the consideration of a bill for the appointment of county medical health officers. It is the intention of the Board to send out a report to the various municipalities for their consideration, recommending the idea of county officers. In this connection it is the intention of the University of Toronto to establish a course leading to a diploma in public health.

Dr. Cassidy, Chairman of the Committee of Epidemics, introduced a report containing a number of resolutions to provide for the regulation of barber shops. Regulations of this kind had been passed by the Board at the fourth quarterly meeting of 1902. After they were published, however, objections had been made by the Barbers' Protective Association of Toronto to some of the regulations, especially to those providing for the disinfection of razors, clippers, shaving brushes, etc. The committee had endeavored to obtain further information as to the most expeditious and trustworthy methods of disinfecting the various tools, instruments, etc., used in the barber's trade. To assist the committee in their investigations, experiments for the disinfection of razors and brushes had been made on several occasions by Dr. Amyot, bacteriologist of the Board. The amended regulations for barbers' shops are as follows:

(1) A barber should be clean and neat in his person and dress, should use the bath regularly, and be particular in maintaining a healthful condition of the mouth and hands.

(2) No person suffering from any disease of the skin, scalp, or hair should act as a barber, nor should anyone suffering from consumption, or any disease commonly known as contagious, serve in this capacity.

(4) If diphtheria, scarlet fever, smallpox, measles or any other contagious disease should occur in the family of a barber, or among his friends or acquaintances, he should not nurse or visit the patients, nor in any way come in contact with them, and if any such disease should appear in his own dwelling or boarding house, he should temporarily change his residence.

(4) Persons suffering from any disease of the skin, scalp, or hair, or from consumption, or persons who have recently recovered from diphtheria, smallpox, scarlet fever, or other contagious disease, should not visit any barber shop or parlor, but should be attended by the barber or hair-dresser at their own homes. All instruments used on such patients should be carefully disinfected after such use.

(5) The floor of a barber shop should be made of hardwood, or, if not so made, should be covered with sound oilcloth or other impermeable floor covering. The floor of the shop should be frequently washed with hot water and soap. As a matter of ordinary routine, it should be mopped every morning with a damp woollen cloth. If the floor is to be swept, it should first be sprinkled with dampened sawdust or wet tea leaves, or oiled and then swept, in order that as little dust as possible may be raised.

(6) The shop or parlor should be well aired before the day's work is begun, and it should also be ventilated during the day. The shop must never be used as a dormitory. Every barber shop should be provided with running hot and cold water.

(7) The shop should be kept very clean, as should also all the chairs, razors, clippers, brushes, towels and all other articles or instruments used in the business. Towels should be carefully washed and boiled and then rinsed to remove the odor of soap.

(8) Customers should be encouraged to use, or have used on them, their own instruments (razors, soap, brushes, etc.), and in the case of persons suffering from diseases of the skin, scalp or hair, this practice should be compulsory. For operations on the dead body, a barber should have instruments used only for that purpose.

(9) (a) Razors, clippers and scissors may be disinfected by being boiled for ten minutes in soapy water or in water containing a little carbonate of potassium. For this purpose the instruments should be laid in an enamelled or galvanized metal dish, and be completely covered by the water. After boiling they should be quickly cooled in cold water and carefully dried. Steel

instruments boiled in the carbonate of potassium solution are not liable to rust.

(b) Razors may be disinfected by being held in a stream of boiling water for thirty seconds. They should then be put into cold water for a short time and carefully dried.

(c) Razors, clippers (disarticulated) and scissors may be disinfected by being exposed in a dish for fifteen minutes to the action of Hebra's spirit of soap, *spiritus saponatus kalinus*. They should then be rubbed dry.

(d) Razors, clippers (disarticulated) and scissors may be disinfected by being exposed in a dish to the action of 95 per cent. alcohol for forty-five minutes. They should then be rubbed dry.

(10) Hair brushes, shaving brushes, combs and straps may be disinfected by being first washed in a strong solution of sodium carbonate and soap, and afterwards placed in a small air-tight closet or case, in which is kept a saucer constantly filled with formalin, about one ounce of formalin to each cubic foot of space. It is recommended that all instruments be laid on racks or trays in this closet. This disinfection should be carried on every night.

(11) Shaving brushes may be entirely dispensed with, and a puff of cotton used instead, which can be destroyed after one using. A shaving brush may be disinfected by being placed in boiling water for ten minutes before using.

(12) Before passing from one customer to another, the barber or hairdresser should thoroughly wash his hands.

(13) The powder puff should be replaced by the powder blower, fresh ball of absorbent cotton or clean towel.

(14) A stick of alum should never be used to stop the flow of blood. A small piece of alum, after being used on a customer, should be thrown away. Astringent pencil may be used if after use it is disinfected in hot water.

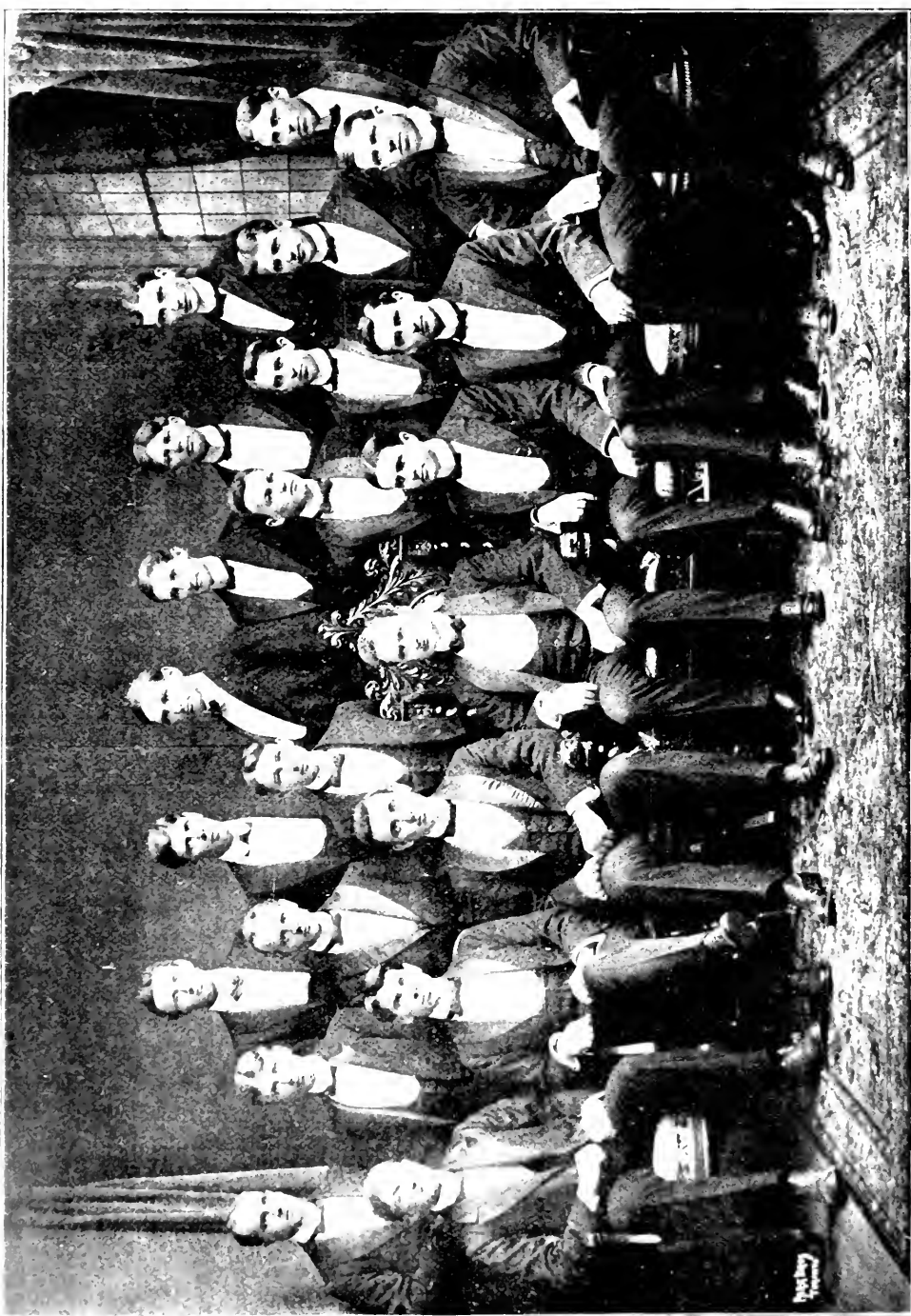
(15) Sponges should not be used in a barber's work, because they cannot be cleaned as a towel may be. In place of sponges towels or balls of absorbent cotton should be used.

(16) Toilet wax should not be used indiscriminately; each customer should have his own toilet wax, which should be kept in a tube.

(17) The hairdresser should remove vaseline from the vessel containing it with a spatula or spoon. Preferably vaseline put up in collapsible tubes should be used by hairdressers.

(18) Only strictly clean linen—towels, wrappers, etc., should be used for each customer. If a freshly-laundered wrapper cannot be supplied to each customer, a clean towel should be used in place of the wrapper.

The report was adopted. This completed the quarterly meeting.



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NO. 1.

Editorials.

A NEW YEAR'S GREETING.

To all our readers we wish a very happy and bright New Year. Thankfully, my esteemed confrere, the editor-in-chief, and myself have sealed the interchange of good wishes with a handshake, and now, metaphorically filling our pipes with the heart's-ease of contemplation, and at peace with the world, the flesh, and the devil, we take a retrospective survey of the fourteen strides from youth to young manhood our child, the CANADIAN JOURNAL OF

MEDICINE AND SURGERY, has made. Many a quiet laugh creeps in over some early enthusiasms, with an echo to that laugh at the prophecies spoken many a long year ago as to the length (or brevity) of our youth's career, and, with a kindly "Thank you" to the staff of godfathers, who have, by their unfaltering interest and the precepts contributed by ever-ready pens, kept our ward not only in the straight and narrow path of medical ethics, but have made its name one to conjure with, we greet 1904, and the commencement of our fifteenth volume. Ere we begin the New Year's long stiff gallop to success, we pause to take a stirrup cup, and to all our readers we drain the toast:

"A hand to you, a health to you,
And golden Memory's wealth to you."

W. A. Y.

EDDYITES MUST NOT WITHHOLD MEDICINES AND MEDICAL ATTENDANCE.

THE decision of the Ontario Court of Appeal in *Rex v. Lewis*, June 29, 1903, endorsing the finding of the trial court by which Lewis had been found guilty of manslaughter, established a precedent for estimating similar infractions of the Code in Ontario, and introduced an important change in the law of this Province respecting Christian Scientists and other unqualified persons attending cases of disease. It was "Held that the defendant (Lewis) had been guilty of an indictable offence under Section 240 of the Code, which enacts that every one who as parent, guardian, or head of a family, is under a legal duty to provide necessaries for any child under sixteen, is criminally responsible for omitting without lawful excuse so to do.

"Held, also, that evidence of cures effected by Christian Science treatment was not admissible.

"The law of the land must be obeyed, even though there be something in the shape of belief in the conscience of the person coming under its obligation, which would lead him to obey what in his state of mind he may consider a higher power or authority.

"Semble, medical aid, assistance, and treatment by some one other than a legally qualified physician or practitioner belonging to one of the recognized schools of medicine may in some cases, satisfy the requirements of the Code."

From the standpoint of Eddyism, a parent who believes in that cult is not only not required to call in a physician to see his sick child, but he would be acting wrongly if he were to do so. Several cases have been reported in the newspapers of this Province showing that Eddyites live up to their creed in this particular. Thus, in Toronto last June, a child, ill with scarlet fever, died after a short illness. The parents, Eddyites, treated their child; a physician saw the child two or three times, in less than two days before its death. On investigation a jury convened by Coroner Young found there was no actual negligence on the part of the parents of the child, because the evidence showed that a physician had been called in and, therefore, it could not be proved that the parents of the child totally neglected to provide medical attendance and medicine.

Last November, Dr. Robertson, Stratford, Ont., was called as M.H.O. to see a girl of fourteen years, who had been ill with typhoid fever for two weeks. She had received no medical treatment, her friends being Eddyites. At the time of Dr. Robertson's visit she was delirious, as she was jumping up and down, and grasping at objects on the wall of the room. Her attendants, Eddyites, were delighted with these manifestations of vigor, and pointed them out to the M.H.O. as proof that the girl was not ill, but recovering strength. She died three weeks afterwards from exhaustion, resulting from typhoid fever. In the Stratford case a coroner's jury found the parents guilty of culpable negligence, and one or both of them will be indicted for manslaughter.

As the law of the land on the question of providing medical attendance to minors is now settled, it is unnecessary to discuss the reasons for the decision arrived at by the Ontario Court of Appeal.

Leaving surgery aside, it is humiliating to confess that medical art, even when practised by masters, often yields disappointing results. Who can give a certain prognosis in lobar pneumonia, even when the patient is a person of distinction about whose fate much interest is felt by the public? The most skilful practitioners cannot promise that a child, ill with scarlet fever, will recover with a sound tympanum. To directly trace recovered health to medical ministrations, in a case of rheumatic fever, may be a bit of inaccurate reasoning, and the strongest advocates of modern medicine recognize the *vis medicatrix naturae* in disease, and the

necessity of strengthening, by every hygienic device, the power by which the body resists and conquers disease.

Admitting, however, the uncertainty of life when dominated by disease, we claim that the skill to direct a medical campaign to a happy issue, by employing a specific remedy, is as traceable to the trained brain of the attending physician as the rescue of a drowning man is to the strong swimmer, who plunges into the water and drags him ashore. For instance, it has been demonstrated that antitoxin, or the serum of immunized animals, is the best therapeutic agent in diphtheria. The investigation conducted by the American Pediatric Society has shown that the mortality under the serum treatment in 5,794 cases was only 12.3 per cent., and that when the treatment was instituted during the first three days, the mortality was only 7.3 per cent. Fifty per cent. of the laryngeal cases recovered without operation, and among those in which intubation was performed, the mortality was 25.9 per cent., or less than half as great as has ever been reported under any other form of treatment. This evidence is irrefragable.

Should any parent in Ontario, Eddyite or not, neglect to procure antitoxin for his child, sick with diphtheria, he neglects to procure a medicine necessary for life, and, in the truest sense, he would be chargeable with manslaughter if the child dies. True, he might plead ignorance of the merits of antitoxin, and, being a non-professional, he might be held excusable. Speaking parenthetically, we think that the plea of ignorance would not hold good in the case of a physician, if he while attending a case of diphtheria and knowing it to be such, neglected to use antitoxin. But that is another story.

The broad meaning to be taken from the decision of the Ontario Court of Appeal in *Rex v. Lewis* is that the care of sick children is to be left with physicians, and that medicines are necessary in treating disease in them. If an Eddyite parent allows his child to die without medicines or medical attendance, he is chargeable with manslaughter.

It seems, however, that a charge of manslaughter is in such cases a feeble deterrent. Fanaticism dies hard. The statute law of the State of New York makes the negligence of an Eddyite parent, which results in the death of his child, bear the gentler name of "misdemeanor," but the penalty may be a fine of \$500 or imprisonment for 500 days. Such a penalty was imposed,

October 11, 1903, by the New York State Court of Appeals, on a *Dowieite*, J. Luther Pierson, of White Plains, N.Y., for permitting his infant daughter to die of pneumonia, without medical treatment.

It seems reasonable to think that a charge of this kind (misdemeanor) will not savor of persecution, but will exercise a restraining influence on Eddyites and other believers in faith cure. A man, who would glory in being a martyr under a charge of manslaughter, would think twice before incurring a fine of five hundred dollars.

J. J. C.

EXPERIMENTS IN THE STERILIZATION OF BRUSHES AND KNIVES BY THE ONTARIO BOARD OF HEALTH.

IN order to determine the value of certain antiseptics in the sterilization of brushes and knives, experiments were made recently by Dr. Amyot, bacteriologist of the Ontario Board of Health. Two separate sets of experiments were made, one with the brushes, the other with the knives. For cultural purposes, a specially nutritive medium, *somatose bouillon*, was used.

Three brushes, which had been in general use, were taken. Cultures were made in broth from the hair of each brush, each of which showed vigorous growth, but no attempt was made to isolate any of the varieties. Each brush was washed in a strong solution of soap and carbonate of sodium, and rinsed in tap water. Brush *a* was then laid aside without further treatment; brush *b* was soured in a 1 in 20 carbolic acid solution for ten minutes, and laid aside to dry; brush *c* was placed in a tight box and exposed for fifteen hours to the vapors of formaldehyde, generated by evaporation from a large shallow dish of formalin (box 12 by 12 by 15 inches). On the following day, cultures were made from all these brushes, and incubated for 72 hours at 37 degrees C. The formalized brush was the only one to show no growth. The experiments were repeated with the same results.

Three all metal knives were sharpened and subjected to the following treatment, after a previous sterilization by steam under pressure (two atmospheres). All the knives were infected

with a vigorous culture of *staphylococcus pyogenes aureus*, grown on nutritive agar. These were then dried in the air, and control cultures were made. No. 1 was then put under a stream of boiling water for thirty seconds, cooled with cold sterilized water, and placed in a broth culture tube. No. 2 was dipped in carbolic acid (95 per cent.), for three seconds, washed in sterilized running water, and put in a broth tube. No. 3 was put into the formalin box, with the brushes spoken of above, for 15 hours, washed off in sterilized water, and placed in a broth tube. All were given 72 hours' cultivation (the knives being taken out after 24 hours, on account of electrolyzation), with the following results: No. 1 knife, which had been exposed to boiling water for 30 seconds, was sterile; No. 2, dipped for three seconds in carbolic acid (95 per cent.), showed good growth; No. 3, exposed to formalin for fifteen hours, showed good growth. The experiments were repeated with the same results.

Subsequently, experiments were made to test the use of carbolic acid (95 per cent.) at different lengths of exposure. The knives were infected and dried as in the first experiments. They were dipped into pure carbolic acid (95 per cent.) for 10, 15, 30, 60, 90, 120, and 180 seconds, then washed in sterilized water, and each of them placed in a broth tube. Those dipped for 10, 15, 30 and 60 seconds showed growth, those dipped for 90, 120, and 180 seconds were sterile, though 72 hours were given them to grow in (knives removed after 24 hours). On repeating the experiments, the same results were obtained. The pure carbolic acid had no visible action on the knives. The tests were severe, because the organisms were protected by the agar. No experiments were made with spore-bearing organisms.

Other experiments were made to test the disinfectant action of alcohol (95 per cent.). Knives, clean and sharp, were infected in the usual way and then exposed for 3, 5, 8, 10, 15, 20, 30, 45, and 60 minutes to the action of 95 per cent. alcohol, and then allowed to dry in the air. Inhibition of growth commenced with the 20-minute exposure; only a slight growth was obtained after 30 minutes' exposure; but none whatever at the 45 and 60 minutes' exposure.

Experiments were also undertaken to determine the value of Hebra's Spirit (*spiritus saponatus kalinus*, 2 parts soft

soap to 1 part 65 per cent. alcohol, perfumed with spirit of lavender) as a sterilizing agent where non-spore-bearing organisms were in question. Instruments infected in the usual way were, after drying, placed in this preparation for periods of 3, 5, 8, 10, 12, 15, 20, 25, 30, 35, 40 and 50 minutes respectively. These were then washed in sterile water, and incubated in nutrient broth. Care was taken about electrolysis. The knife exposed for ten minutes showed no growth; all the knives exposed longer showed no growth; the knife exposed for eight minutes showed very slight growth.

From these experiments, Dr. Amyot concludes that knives infected with *staphylococcus pyogenes aureus* may be disinfected, (1) by exposing them to a stream of boiling water for 30 seconds; (2) by placing them for 90 seconds in carbolic acid (95 per cent.); (3) by placing them for 10 minutes in Hebra's Spirit; (4) by placing them for 45 minutes in 95 per cent. alcohol.

The behavior of the infected shaving brushes, as detailed in the first portion of this article, shows that the mere washing of brushes in a strong solution of soap and carbonate of sodium will not destroy the pyogenic organisms they contain. Neither will disinfection of such brushes follow a good washing in a 1 in 20 solution of carbolic acid. The fact, that an infected shaving brush can be disinfected by exposing it in an air-tight box to the vapors of formalin for 15 hours, is worth knowing. It shows one of the important things that barbers will have to do, if they wish to be just to their customers.

J. J. C.

EDITORIAL NOTES.

Cotton Gloves or Rubber Gloves in Surgical Operations.—

In an editorial which appears in the *Southern California Practitioner*, November, 1903, the writer notes the methods adopted by different European surgeons to secure asepsis. "In some clinics, like that of Von Mikulicz, of Breslau, Von Eiselberg and Zukekandle, of Vienna, caps, masks and cotton gloves are used. In no clinic in Austria or Germany have I seen rubber gloves used, other than in a few well-marked septic cases. The cotton gloves, so commonly used, are changed frequently, often ten or twelve pairs being used by the operator in a single case. Many operators do not use gloves of any description in other than septic cases. This

is true in the clinics of Mositig-Moorhof in Vienna, and in Olshausen's, Laudeau's and Israel's clinics in Berlin. In Israel's and Olshausen's neither caps nor gloves are used. In the clinic of Professor Von Mikulicz, of Breslau, there seemed to me the most perfect asepsis attained of any clinic I had the pleasure of attending across the water. It is more American than any other clinic I attended abroad. Here caps and cotton gloves are very frequently changed, and masks of the Mikulicz pattern were conscientiously used." Dr. Goepfert (*Centralblatt für Chirurgie*), whose remarks are summarized in *La Presse Medicale* by Dr. Romme, offers some views on the glove question in surgery. He thinks that the surgeon should use cotton gloves placed over rubber ones. If his hands were thus protected, the rubber gloves would not permit the microbes of the skin of his hands to pass into the cotton gloves, and from them into the operation wound. Similarly, the rubber gloves protect the surgeon's hands from infection in a case in which the cotton glove becomes impregnated with a septic fluid during the operation. In case of such an accident, either cotton gloves alone, or both cotton and rubber gloves together, could be removed and changed, which would take less time than giving the hands a fresh cleansing. If a surgeon wears cotton gloves over rubber ones, his hands have a better grip of the instruments, and he can tie ligatures more firmly than if he wears rubber gloves only. Besides rubber gloves are often cut by the ligatures. If, during an operation, a surgeon has to explore the abdominal cavity, or a hollow viscus, he has only to remove the cotton glove in order to restore to his finger, protected by the rubber glove almost its entire tactile acuity. In small operations the combined use of the two kinds of gloves does away with the necessity of frequent washing of the hands, which saves time.

Mugnai's Procedure in the Radical Cure of Hernia.—

Mugnai's (*La Riforma Medica*, 1891) procedure differs from Bassini's in several particulars. In Bassini's operation, the inguinal canal and its two orifices are allowed to remain. Some continental surgeons think that the canal and its two orifices are unnecessary to provide for the passage of the cord through the abdominal parietes and, therefore, suppress the canal and one orifice, thus bringing together the walls of the inguinal canal into one resisting plane. This seems simpler, more easy of exe-

cution and ought to be more solid. In 1890, Postemski modified Bassini's operation, according to this general idea. After restoring the posterior wall of the inguinal canal, as Bassini does, instead of allowing the cord to drop into its place so as to remake the anterior wall of the inguinal above it, he keeps the cord elevated, remakes the anterior wall above the posterior one, upon which it rests, and afterwards allows the cord to drop. The cord then passes through the abdominal parietes at the position of the internal ring, and remains under the skin, in front of the parietes. The principal objection to this procedure is, that it allows the deep ring of the canal, the one which stretches, and at which nearly all the relapses occur after radical operations, to remain. In Mugnai's procedure, a plan, the reverse of Postemski's, is followed. The spermatic cord is allowed to drop behind the abdominal parietes, resting on the subperitoneal fatty-cellular tissue, and is brought out through the parietes at the superficial orifice of the inguinal canal. In fact, the deep, internal ring, the dangerous point, disappears, the two walls of the inguinal canal are remade, and placed over each other, and the spermatic cord passes through the parietes by an opening placed at the most resistant part of this region, for its lower external lip is formed of the crural arch, and its upper, internal lip by Colles' ligament, the conjoint tendon and the internal pillar of the abdominal ring, which are solid and resistant tissues. Dr. Begouin, Bordeaux, who has employed this method in fourteen cases, speaks well of it from the double standpoint of facility of execution and permanency of the result. He says, that, whether the reunion of the cut edges of the abdominal parietes is effected on one or two planes, by the aid of temporary or permanent sutures, he prefers Mugnai's method for the reasons given.

Diet in Bright's Disease.—According to Von Noorden, practitioners should inform patients with Bright's disease, that the free drinking of liquids increases the labor of the heart, that every case of Bright's disease is, in a certain sense, a case of heart disease and that, in many cases, the heart trouble is more dangerous than the kidney one. He allows his patients with Bright's disease 1 1-2 litres (52 1-2 oz.) of water per diem. This quantity of fluid is in excess of the water contained in solid and semi-solid articles of food. To promote the excretion of urea,

uric acid and the urinary salts, Von Noorden authorizes patients with Bright's disease to take once a week an increased quantity of water, 2 1-2 to 3 litres (87 1-2 to 105 oz.). Even in gouty nephritis, he recommends the restricted quantity of water, but advises the addition of small quantities of bicarbonate of sodium to the water. He guards against obesity, and argues against a fattening diet of milk, butter and vegetables, preferring that the patient's weight should not cause too much labor of the heart. Patients with Bright's disease should be allowed a sufficient and strengthening diet, without over-feeding. In case of overweight, the patient's weight should be reduced slowly, recollecting that in nephritis the object of treatment is not rapidity, but safety. In regulating the daily amount of food, he is guided by the patient's weight, endeavoring to keep down obesity, which is dangerous for the heart in Bright's disease. Meats rich in nuclein, veal, sweetbreads, liver and kidneys should be avoided, because uric acid is imperfectly eliminated in Bright's disease. Regarding the relative eliminability by the kidneys of equivalent quantities of meat albumen, egg albumen, milk and vegetable albumen, Von Noorden thinks that there is not much difference. He shows that, from this point of view, a logical distinction cannot be made between red and white meats. These facts, as given by Von Noorden, are of great practical importance, for, if confirmed, the diet of a case of Bright's disease could be made much more liberal and varied than it generally is.

Hemoptysis in Aneurysm of the Aorta.—Dr. Rouget reported to the Medical Society of the Hospitals (November 6th, 1903), the case of a soldier, under treatment at Val-de-Grace, for slight but frequently recurring attacks of hemoptysis. Auscultation showed slight emphysema. There were no bacilli tuberculosis in the sputa. As there was some difficulty in the patient's larynx, it was supposed that there might be a hydatid cyst in the lung, which caused compression of the recurrent laryngeal nerve. On employing the X-rays, Dr. Rouget discovered, to his surprise, an aneurysm of the arch of the aorta. The patient shortly afterwards died, not from hemorrhage, but asphyxia. The necropsy revealed a fusiform aneurysm of the arch of the aorta, with a very thick fibrinous blood clot, forming a valve over an ulcer which opened into the trachea. Two conclusions may be drawn

from this observation: (1) Some aortic aneurysms are latent, and present no special symptoms; (2) expectoration of blood by a patient who has a thoracic aneurysm is not a strong indication of an imminent rupture of the aneurysmal sac. Some authorities think that in such cases the hemoptysis may be due to pulmonary apoplexy, others that it may due to one of the reflex disorders which are observable in such cases; for instance, acute edema of the lung.

A Test of the Time Taken for the Digestive Act.—At the Society of Biology of Paris, October 31st, 1903, Drs. Sicard and Infroit detailed the results of some tests made to show the propelling power of the human intestinal tube. They used an ordinary cylindrical gelatine capsule, fifteen millimetres long by six millimetres wide (about 9-16 by 4-16 in.). The capsule was first filled with bismuth and afterwards immersed for a few seconds in collodion, so as to get a covering on its surface, which would make it impervious to the digestive juices. By means of the X-rays it was then possible to localize the different positions occupied by the capsule during its transit through the intestines. After being swallowed in the morning by a fasting individual, the capsule remained in the greater curvature of the stomach about half an hour. Eight hours afterwards it had reached the cecum. The passage of the capsule through the seven or eight metres of the small intestine in eight hours was too rapid to permit the experimenters to obtain suitable pictures. On the contrary, it remained about four or five hours at the cecum. It passed through the ascending colon in one or two hours, the transverse colon in two or three hours, the descending colon in three or four hours, and at from the twentieth to the twenty-fourth hour came to a stop in the sigmoid flexure of the colon, where it remained ready for expulsion.

J. J. C.

PERSONALS.

DR. T. B. RICHARDSON has removed from 10 Carlton Street to 128 Bloor Street West.

DR. E. CLOUSE has returned from a trip to New Ontario, having visited the Lakes Wahnapiwai and Matagamashing sections, and spent some time at Crystal Mines.

DR. J. F. W. ROSS, with Mrs. Ross, left on December 3rd for Egypt and the Nile, and will be away for three months.

DR. T. S. WEBSTER has removed to his handsome new residence, south-east corner Willecocks Street and Spadina Avenue.

DRS. F. N. G. STARR, A. J. HARRINGTON, A. J. JOHNSON, H. T. MACHELL, and N. A. POWELL were among the sportsmen who spent ten days of November in the forest primeval.

DR. GEO. W. BADGEROW, house surgeon to the Throat Hospital, Golden Square, London, England, was at the King Edward Hotel recently. Dr. Badgerow is an old Toronto boy.

DR. JOHN W. SCANE has been appointed registrar of the Faculty of Medicine of McGill University, Montreal, in succession to Dr. von Eberts, who resigned a short time ago. Dr. Scane recently has been an assistant to the professor of physiology.

DR. HODGETTS, Provincial Medical Health Inspector, has returned from Kaladar, Hungerford and Tweed, where he has been examining into the smallpox outbreak. He reports that there have been twenty-nine cases in eight houses. One death has resulted, probably due to the disease. The outbreak is supposed to have originated from a woman who visited at Dale's Corners, with her children, who had what was termed eczema. The cases have now all been isolated and everything is being done in the way of general vaccination and other precautions to prevent the spread of the disease. It is now felt that the outbreak will be easily checked.

DR. ARNOTT, of Berlin, Ont., who is well known to many of the profession throughout this Province, some months ago decided to devote part of his time to the treatment of that painful complaint, stammering, and, with that object in view, opened the Arnott Institute, in his own town. Naturally, the doctor is anxious to have his medical confreres know what he is doing in this line of special work, and we are glad to call attention to his announcement on page xlii of this issue. Dr. Arnott is prepared to treat defects of speech of any kind, and, knowing as we do of the doctor's special adaptability for this work, we feel that those of his brethren in the profession who refer cases to him for treatment will have no reason to be disappointed.

News of the Month.

TORONTO UNIVERSITY SEEKING BETTER HOSPITAL FACILITIES.

THE medical faculty of the University of Toronto and the boards of trustees of the principal hospitals are at present negotiating with a view to arranging for accommodation and regulations to secure better hospital facilities for medical education. A need along these lines has been felt for some years and the union of the two medical faculties has paved the way for concerted action by the university and the teaching branch of the medical profession. A committee was appointed consisting of the Vice-Chancellor, Chief-Justice Moss, President London, Mr. Irving Cameron, Dr. Primrose, Dean Reeve, Dr. Bingham, Dr. McPhedran and Dr. J. F. W. Ross (Chairman). They drew up a statement embodying the changes and improvements desired and presented them to the boards of the General and St. Michael's Hospitals. At the meeting with the Board of the General Hospital interest in the proceedings was increased by the presence of Mr. Rose Bradford, an eminent physician of University College, London, England, who addressed the Board upon hospital work in London.

The proposals dealing first with the subject of house staffs were, briefly, as follows: That the house staff be large enough to carry on the work efficiently, that one member of each staff be detailed to do clinical laboratory work exclusively, that the staffs be divided into seniors and juniors, and the seniors retire every six months; that the duties of the house staffs be defined by new rules, that no fees be paid any members of the house staffs by physicians or patients, that each hospital board should appoint an official anesthetist.

Then, with a view to increasing the material for clinics, it was urged that all patients in public wards be placed in charge of the clinical staff. The material at present available, the committee stated, was deplorably limited. It was proposed that a committee be appointed by each staff to supervise hospital admissions.

Closely related to the question of clinical material is the out-patient department. The report stated that a committee of the faculty recently visited New York, Boston, Philadelphia,

Chicago, Montreal and Baltimore, and reported fully on the value of well-equipped out-patient departments. The out-patient departments connected with the Toronto General and St. Michael's Hospitals lack proper organization, and must be considered as valueless in their present state. In the General Hospital the rooms are too small, the facilities for handling patients are too meagre, and the heating in winter is so poor that the health of the patients, the students and the staff is endangered thereby.

Better facilities for the study of pathology were asked by the taking of pains to increase the number of autopsies, and the keeping of proper records.

THE ONTARIO MEDICAL ASSOCIATION.

JUDGING from present appearances, the meeting of the Ontario Medical Association next June is going to be a record one under the presidency of Dr. J. F. W. Ross, and arrangements are being made to increase the interest taken in the annual meeting of the Association, and encourage the attendance from the smaller towns all over the Province. Dr. Ross entertained the members of the various committees at dinner at the King Edward Hotel on November 27th, when matters in connection with the Association were talked over, a most enjoyable evening being spent. The following are those who compose the different committees for the current year:

COMMITTEE ON PAPERS AND BUSINESS.—A. A. Macdonald, N. A. Powell, G. A. Bingham, J. T. Fotheringham, W. J. Wilson, T. F. McMahon, G. Chambers, R. D. Rudolf, J. Caven, H. Parsons.

COMMITTEE ON ARRANGEMENTS.—A. Baines, B. L. Riordan, H. J. Hamilton, A. Primrose, W. B. Thistle, D. J. G. Wishart, A. H. Garratt, J. M. Cotton, E. E. King, C. J. Hastings, A. Eadie, J. B. Gullen, H. A. Bruce, R. J. Dwyer, W. H. Pepler, F. Fenton.

TEMPORARY COMMITTEES.—*Hospital Abuse*.—W. J. Wilson, R. A. Reeve, C. J. Hastings, E. J. Barrick, A. A. Macdonald, C. Sheard, G. A. Bingham. *Necrology*.—A. Primrose, J. McCullough, A. H. Howitt. *Audit*.—D. J. G. Wishart, C. H. Carveth, G. Elliott.

THE Natural Food Co., 32 Church Street, Toronto, entertained quite a number of Toronto's medical practitioners at luncheon on December 11th, when a very pleasant hour was spent with the firm's genial representative, Mr. J. Hewitt.

ITEMS OF INTEREST.

New Montreal Hospital for Contagious Diseases.—The plans of the new Alexandra Hospital have been accepted. It will be erected soon at Point St. Charles, and will cost \$100,000.

Music in Hospitals.—In Boston during December, musicians employed by the Hospital Music Fund visited the Woman's Charity Club Hospital, New England Baptist Hospital, and the Children's Hospital.

Sir Frederick Borden Honored.—Sir Frederick Borden while recently in London was made a member of the permanent committee on Imperial defence. This is the first time a colonial minister has been honored in this way. He is greatly pleased with the result of his visit.

Polk's Medical Register.—The eighth revised edition of this well-known work is now under way, and will appear in due time. Send for descriptive circulars, and do not be deceived by imitators. Polk's Medical Register and Directory has been established sixteen years. R. L. Polk & Co., Publishers, Detroit, Mich.

A New Laboratory for Harvard University.—The Bussey Institution of Harvard University, situated in Jamaica Plain, is to have a new laboratory where vaccine and antitoxin will be manufactured for the State Board of Health, under the direction of Professor Theobald Smith of the Medical School. The estimated cost is \$20,000, and it is expected the building will be ready by next April.

Encouraging Order Received from Jamaica, W.I., by a Toronto Surgical Instrument House.—Chandler & Massey Limited of this city, were recently honored by receiving from the Royal Naval Hospital at Port Royal, Jamaica, W.I., a large order for their specialties for immediate shipment. When a firm turn out the quality of goods manufactured by the Chandler & Massey Limited, and spare nothing to ensure that any article bearing their name is the best that can be made, it is but right that such efforts should receive recognition such as above.

Pathological Study of Insanity.—Several interviews have lately been held with Hon. J. R. Stratton in connection with the question of providing more extensively for the pathological study of insanity at the Provincial asylums. It is believed that much advance could be made in the knowledge of causes and cures for insanity if more efficient study could be carried on. Mr. Stratton has given no definite promise that the plan would be carried into execution, but admitted the wisdom of some such course, and it is not unlikely that he will lay the matter before the House at its next session.

Virchow's Library.—The most valuable portion of Virchow's library has been presented by his widow to the library of the Berlin Medical Society. These six or seven thousand volumes are to be kept separately as the Virchow collection.

New Coroners.—The *Ontario Gazette* contains the announcement of the following appointments: Dr. John Marty, of New Hamburg, to be an associate coroner for Waterloo County; Dr. W. G. Dow, of Owen Sound, associate coroner for Grey.

"Los Angeles Medical Journal."—The first number of this new medical journal appeared under date of November 15th. It is a monthly periodical devoted to medicine, surgery, dentistry and hospital nursing. The editor and manager is Ernest S. Pillsbury, M.D.

A Young Anatomist.—Some days ago two little fellows of seven and eight years heard older people speaking of skeletons. The seven-year-old boy listened intently to the conversation, when the elder boy, with an air of superior knowledge, said abruptly, "You don't know what a skeleton is, and I do." "So do I!" replied the younger. "I do know. I know for certain, I do!" "Well, now, what is it?" "It's bones with the people off!"—*Lippincott's*.

McGill Wants Recognition.—McGill University, Montreal, has made application to the Minister of Education for the recognition of its honor courses for the non-professional standing of specialists. It has been decided to have the application considered by a committee consisting of President Loudon, of the University of Toronto, Chancellor Burwash, of Victoria College, Chancellor Wallace, of McMaster University, Rev. Prof. Clark, of Trinity, and Dr. Knight, of Queen's University.

Plated Corpses.—A German professor has invented a process of silver-plating dead bodies so as to convert them into metalline images of the individuals as they were when in life. Gold plate can be used if the relatives can afford it. But, as the expense of silver-plating a body is \$12,500, there are probably few relatives who would deem themselves justified in squandering the deceased's estate on such a memorial.—*Am. Med.*

Disinfection of Slate Pencils.—The school board of Springfield, Ohio, at the suggestion of Dr. Seys, the Health Officer, has decided to disinfect the slate pencils used by the children in the public schools. The custom has been to gather up in the evening all slate pencils used during the day, have them sharpened, and distributed again in the morning. Hereafter, if Dr. Seys' suggestion is acted upon, the slate pencils will be kept in formalin over night, then washed off and sharpened in the morning before being given out for use by the pupils during the day.—*Med. Record*.

Radium May Cure Cancer.—The *Herald* (New York) recently had the following special from London: Some of the more sensational papers during the week stated that several patients at Charing Cross Hospital had been cured of cancer by the use of radium. The facts are that continuous experiments in this direction are being carried on and that several cases are making promising progress, but no absolute cure has yet been effected. Hopes are entertained that one woman patient suffering from rodent ulcer has been so much benefited that complete recovery will follow. Eleven cases are under treatment at the Cancer Hospital in Fulham Road.

Final Examination.—The following candidates passed the final examination of the College of Physicians and Surgeons in Ontario, December, 1903: Anderson Lazelle, Ingersoll; J. Brown, Forester's Falls; J. M. Boulter, Picton; Emma Connor, Stirling; N. Davis, Fallowfield; J. E. Davey, Waterford; H. R. Elliott, New Sarnia; W. J. Fischer, Waterloo; J. J. Fraser, Huttonville; W. A. Groves, Fergus; J. N. Gunn, Ailsa Craig; B. J. Hazlewood, Bowmanville; M. Logan, Meaford; W. R. Mason, Ottawa; T. McPherson, Stratford; A. P. F. Nelles, Windsor; F. J. Pattee, Hawkesbury; J. Roberts, Hamilton; J. J. Robertson, Belleville; J. M. Stevens, Chatham; H. E. Service, Peebles; R. J. Trumpour, Toronto; R. G. Williams, Meaford; O. C. Withrow, Woodstock.

Too Much Arsenic in Beer.—The British Royal Commission on arsenical poisoning from food and drink recommended the prohibition of the sale of beer and other liquid food, or of any liquid entering into the composition of food, which contains one-hundredth of a grain or more of arsenic per gallon, and the prohibition of the sale of solid food containing one-hundredth of a grain per pound, no matter whether habitually consumed in large or small quantities, or whether consumed at once (like golden syrup) or mixed with water or other substances (like chicory, etc.). The commissioners find there are serious defects in the present machinery available to safeguard the public and urge that more extended powers be given to the authorities to condemn unwholesome food, the establishment of official "standards" and the creation of a "board of reference" to which could be referred specific points, and those should be carried out by the department concerned, the latter's action to be subject to the control of Parliament.

African Dwarfs for the World's Fair.—The party sent out by the department of anthropology of the World's Fair to the Congo country of darkest Africa to gather together for exhibition at the exposition, specimens of African pygmies, has sailed from New York. The Rev. Samuel Phillips Verner, president of the Stillman Institute of Tuskalooosa, Ala., and a noted traveller in

African jungles, is the leader of the expedition. In company with several native African boys, whom he brought to this country several years ago, he hoped to reach Las Palmas, on the west coast of Africa, not later than December 9th. Dr. Verner has instruction to bring back with him eighteen of the most interesting specimens of the human race that will probably be seen at the World's Fair. There will be none but pygmies in his party, classified so as to interest the scientific student of ethnology, as well as the mere curious spectator. His instructions are to bring back one pygmy patriarch or chief, one adult woman, preferably the wife of the chief; an adult man, preferably the son of the chief; and an adult woman, wife of the son. Others to be included in the exhibit are a male and female youth, two infants, four adults, a priest and priestess, either of the Batwa or Domba tribes; one fine type of the red African, preferably of the Ndombe tribe; three more red Africans and two native pygmies, each of a distinct ethnic type from the others. After the Fair these people will be returned to their homes.—*Am. Med.*

Harvard Medical School.—The foundations are being laid for the new Medical School, and it is expected that by the fall of 1905 the school will be moved from its present quarters behind the Boston Public Library to the new buildings near the Fenway in Boston. The fund was started at commencement in 1902, when a gift of \$2,000,000 from J. P. Morgan was announced. Subsequently donations were received from J. D. Rockefeller and Mrs. Collis P. Huntington, together with smaller contributions from friends of the university. Altogether a fund of \$5,000,000 has been secured. There will be six large structures, five of which will be grouped about three sides of a court 520 feet long and 215 feet wide. The sixth building, to be used as a power house, will stand apart from the main group. It has been decided to give up at present the contemplated new building for the Dental School. The buildings alone will cost over \$2,000,000, and it is believed they will be the finest of their kind in the world. They are to be constructed entirely of white Vermont marble, with the exception of their bases, which will be of pink Milford granite. The Medical School faculty are planning to have many affiliated hospitals near by. Among the several institutions to which the corporation has already made offers, and which have signified a desire to take advantage of the offer, are the Brigham Hospital, the Children's Hospital, the Samaritan Hospital, and the Infants' Hospital. The last-mentioned, which is to be built in memory of Thomas Morgan Rotch, 1901, will be smaller than was at first planned, as it has been decided to go ahead on the already existing gift of \$76,000.—*Med. Record.*

Obituary

DEATH OF DR. HUGH SPEARS, TORONTO.

DR. HUGH SPEARS, aged 69 years, a well-known figure in the East-End, was found dead in bed at 15 Hamilton Street, on November 25th. The discovery was made by Alexander Devitt, inspector for the Consumers' Gas Company, who called at the house to take the meter registration. The room was full of gas, and on investigation it was found that the deadly vapor escaped from a tube, which had become disconnected from a tiny gas stove, on which deceased had evidently been boiling a kettle of water. The body was propped up on pillows, and a German grammar rested on a stand in front, as though deceased had been reading. The supposition is that he fell asleep and did not notice the gas escaping.

Dr. Spears owned considerable property in the East-End. For the past few years he had lived alone. His wife and two daughters resided with the son.

DEATH OF DR. WILLIAM MATTHEW WARREN, DETROIT.

PERHAPS no better way could be found to convey the feelings of the vast number of friends of the late Dr. William Matthew Warren, on his death a few weeks ago, than to reproduce the following beautifully-worded resolution of the Board of Directors and all employees of the firm of Parke, Davis & Company:

"In loving memory of a beautiful and beneficent life, we, the assembled directors, executives and employees of Parke, Davis & Company, would fain express our sorrow and heartache caused by the untimely death of our general manager, William M. Warren. For the relief of our own grief, as a just tribute to a life rich in effective performance, and in deference to the sentiments of a wide circle of surviving friends, we record this testimony to the noble character, the massive and solid integrity, the large, warm, generous heart, the brilliant and gifted mind, the abounding energy of our beloved friend. As long as life and memory may linger in our mortal frames, we shall cherish the recollection of his lofty spirit and winning manner—simple, sweet, and genial. The benevolence of his heart shone out in the engaging

smile, in the keen and penetrating yet kindly eye, which gained for him a friend in every acquaintance. No man ever lived whose granite-like probity inspired quicker or more lasting trust. To know William M. Warren was to like him; to know him well was to love him and trust him to the gates of death. And what living creature ever trusted him in vain? His simple word was a tower of strength. When did he ever fail in the whole span of his short but shining life to fulfil his plighted faith with a chastity of honor that knew no stain—nay, when did he fail to beggar his promise by the opulence of his performance? Gifted he was, but his strength lay as much in moral weight as in mental endowment, and his remarkable success was only the destiny of character.

“ Mr. Warren won many of the great prizes of life—high position, wealth, influence, popularity, business success—but he never paid any of their tragic penalties. His temper remained sweet, his faith in men unimpaired, his honor unsoiled, his love of humankind unchilled.

“ It would hardly be fitting at this time to give more than a passing glance at Mr. Warren's beautiful devotion to wife and orphaned child, to parents and sisters. He rose to the full height of all domestic duties; to him, indeed, they were not duties, but joys, for he cherished tenderly every family tie, and he could not draw a cheerful breath until those dearest to him shared in the rich happiness of his young and radiant life.

“ Mr. Warren had barely crossed the threshold of his fortieth year. Entering the service of Parke, Davis & Company when a lad of seventeen, he rose steadily through its various grades until at thirty-two he filled the highest place in the gift of the house, that of general manager. At his death his administration was seven years old almost to a day. Its wonderful success has been manifested in a rapid and unceasing increase of the business; in the multiplication of our laboratories and branch houses; in the erection of new buildings, acre after acre; in the successful invasion of foreign markets and new fields of scientific enterprise; in heightened prestige; in the formation of a remarkable corps of veteran executives animated by the principles of their leader and trained to perpetuate his policies. No ambitious merchant could wish a nobler monument than the contributions made by William M. Warren to the power and growth of the great enterprise whose progress was the blood in his veins and the breath in his lungs! The secret of his brilliant career was threefold. He knew how, and loved, to discover talent. Into the hands of dozens of obscure and untried men he put the key of opportunity. Wholly free from national antipathy, race prejudice, or social narrowness, he measured his lieutenants by the single standard

of ability to produce results. As an organizer, as a co-ordinator and manager of men, his rare gifts would have brought him fame in public life. He had an eagle's eye for opportunity, and an insatiable appetite for fresh enterprise in fields that remain unperceived by the dull vision of the mediocre. In the arts of mercantile construction he was a gifted architect; and to build was the darling occupation of his bold and aspiring mind. Every actuality, every present-day condition that could affect the welfare of this house was the object of his assiduous study; but his also was the rarer power to connect the present with the distant future by new lines of policy. He had the statesman's instinct for tendencies as well as realities; and when the tendency of to-day became the fact of to-morrow it found him armed and prepared. With the magnanimity of a true leader, he feared no rivals; he reared and trained his own successors that his life-work might survive its author, that the house to which his labor was dedicated might thrive and prosper during the generations to come. Fidelity to a trust receives its supreme, its heroic expression when the trustee strives to make himself dispensable.

"Oh, beloved friend of happy days, partner of our triumphs, architect of our success, may thy serene spirit remain an invisible presence in our lives and comfort our aching hearts. May the sweetness, the strength, the wisdom, the genial cheer of thy young life be distilled upon our souls and sustain us in the task which thou hast forever resigned. May thy great, large-minded thoughts be breathed into our toil; may they help us dedicate our lives and our labors to a solemn work which touches the very nerve of pain and human suffering. In our feebleness we could not abridge thine ailment or prolong thy days; may it be given us to cherish, to preserve, and to augment thy handiwork!"

A Deserved Recognition.—Just as we go to press, we learn that the position of General Manager to the firm of Parke, Davis & Co., Walkerville and Detroit, has been filled by the appointment to that post of our esteemed friend, Mr. E. G. Swift, Mayor of Walkerville, and who for years has had charge of the Canadian branch in the latter town. We feel that Mr. Swift, who has shown peculiar adaptability for the work and proved himself an admirable executive officer, will be a worthy successor to the late Wm. M. Warren, and be the means of leading his firm to still greater success. A unique feature is that Mr. Swift, who was born in Canada, became an American citizen when he first went to that country, and started in with Parke, Davis & Co. When he became first manager of the Walkerville branch of the house he renounced his allegiance to Uncle Sam and returned to the flag of his nativity.

Selected Articles.

TREATMENT OF GASTRIC DISTURBANCES.

Nothing leads to a cure in gastric troubles so certainly as abstinence from food for two days, by that means giving the stomach a physiological rest. In the mildest cases a little food may be given, though in many others it need not be withheld more than twenty-four hours. It is often difficult to persuade patients, and even harder their friends, that it is safe to go without food for two days. That it is safe has been demonstrated so frequently that no proof need be cited. Experience has demonstrated the utility of abstinence from food in gastritis beyond peradventure. In the severer cases even a longer time must elapse before the stomach is used for digestion, but food should, during this period of abstinence, be given mostly in the form of rectal injections. But in severe cases, usually from a teaspoonful to a tablespoonful of peptonized milk may be given by the mouth at the end of the second day. These small quantities should be administered every half hour or hour. Although most patients are strong enough to go without food for one or two days without suffering dangerous weakness, it is not safe to starve for even a short time those who are already feeble. Such patients should be given nutritive enemata from the start. In severe cases vomiting is an early and constant symptom. It can be lessened by feeding bits of ice so that a wine-glassful will be taken in the course of an hour and a half or two hours. Cold effervescent drinks, such as seltzer water, also help to lessen it. A mustard plaster or a poultice placed on the epigastrium sometimes gives relief.

Thirst is always increased and often intense. Bits of ice or water taken in sips will help to quench it. Care must be taken that too much be not swallowed, as it will then provoke vomiting. Many times thirst can be lessened by rinsing the mouth frequently, or by holding a mouthful of water for some moments. If water is made slightly acid by a little phosphoric or muriatic acid, it will be grateful, and the temptation to drink large quantities will be lessened. When thirst is excessive and vomiting prevents drinking, water must be given by the rectum or by hypodermic injection.

After the requisite period of abstinence milk should be given;

at first only one or two tablespoonfuls each hour, but if it is well tolerated, one-half or two-thirds of a glass may be given every two hours. Occasionally it is vomited in large curds. This may be prevented by giving it diluted with lime water or seltzer, or by boiling it, and by thickening it slightly with flour. It is rare, however, that it is undigested if it is given at first in spoonful doses and only gradually in larger amounts. Even persons who do not like milk, and with whom it does not agree, can usually be taught to tolerate it when it is given in such small and slowly-increasing doses. It is best to maintain a milk diet until convalescence is established. It may be fortified, as convalescence approaches, by the addition of an egg or a little wheat flour. A few prefer it warm, and many can digest it best when it is warmed. Occasionally a person is found who prefers it if a little spice, such as nutmeg or a little salt and pepper, is added to it. These idiosyncrasies of taste may be gratified with safety.

There are, of course, patients who cannot tolerate milk in any form, and, rather than persist with its use, it is best to substitute some other form of diet. A preparation that has been found valuable in cases such as this, or when some concentrated form of nourishment has to be given in the smallest bulk, as in typhoid fever, phthisis, etc., is Lactalbumin. This is the soluble proteid of whey, and is the natural nerve food as supplied by nature in mother's milk. It is put up in three different forms: No. 1, chemically pure Lactalbumin; No. 2, 50 per cent. Lactalbumin and 50 per cent. Caseinogen; and No. 3, identical in proportion to the proteids as found in mother's milk, containing no ferment. Just recently, this preparation proved itself to be all that is claimed for it in a case of acute gastritis, where no nourishment could be retained till Lactalbumin was brought into requisition, also in another of deficient lactation, the result being that the milk secretion was materially increased within seventy-two hours.

Mrs. F. M., Toronto, aged 39, was seized a few weeks ago with acute pains across the stomach and over the cardiac region, about 5 a.m. Vomiting commenced soon after, and though it afforded relief from pain for a few minutes at a time, the retching came to be so severe that she got soon very much prostrated. The temperature ran up to 101.4, and the pulse beat 96. There was a great deal of tenderness over the stomach, and almost constant hiccough. It was only after administering 1-4 grain doses of hydrochlorate of cocaine with maltopepsin that any relief was afforded. Mrs. M. vomited everything, even to a drink of water, for the first four days. She was given small doses of champagne, peptonized milk, peptonized bouillon, essence of meat, custards, milk and apollinaris water, but with the same results. After taking a powder of 1-4 grain of cocaine dry on the tongue, about

an hour later a small teaspoonful of Lactalbumin, No. 3, was administered. It remained down, and the dose was repeated in four hours, with the same result. As it seemed to "fill the bill" all right, the patient's diet was confined to Lactalbumin, and, as she gained in strength, and the temperature gradually lowered, No. 2 was substituted for No. 3, and a little later the chemically pure was administered, with the result that though for some weeks she took nothing but Lactalbumin, she increased in strength, got well, and added to her weight.

The potent influence of this preparation, as a galactogogue, was shown in the case of Mrs. R. T., Toronto, who was recently confined and gave birth to a boy 9 1-2 pounds in weight. There was not more than half the normal quantity of milk secreted in the breasts, and the outlook for the baby was not the best. Lactalbumin, No. 3, was used, and in less than three days the milk was largely increased in quantity and enriched in quality, mother and infant doing well.

In mild cases bouillon may be given as well as milk, and its use may be begun early in convalescence. It may be strengthened with egg or soft boiled rice, crackers or stale bread, and meat juices (Brand's) may be added early to the diet. Then such foods may be eaten as malted milk, Robinson's barley, sweetbreads, squab, eggs, chicken, scraped beef, minced ham, soft boiled rice, tapioca, baked potato, fruit jelly, baked or stewed apple and prunes.

Care must be taken during convalescence not to give food in too large quantities, or food that is not easily digested, for the capacity of the stomach is so lessened that it is easily overtaxed. If the food ferments, producing acetic, lactic, or butyric acids, or other irritating substances, a relapse will be provoked. Such fermentation will surely occur if foods stay too long in the stomach. Patients should be cautioned to eat moderately, and to eat only the simplest foods for three or four weeks after recovery, because the stomach is left unusually sensitive by this disease for some time.

Tea is generally tolerated earlier than coffee, but neither should be permitted until the patient has recovered. When they are allowed, only a very small cup of either should be taken, and it should be weak. Alcoholic beverages must be forbidden. When they are the cause of gastritis, they should be forbidden permanently. It is true that dry champagne is sometimes administered with benefit in sips to lessen vomiting.

TONSORIAL ASEPSIS.

"THIS towel," said the attendant in the germ-proof barber's shop, "has been subjected to an extreme heat and is thoroughly sterilized. We take every precaution against exposing our patrons to infection or contagion.

"Good thing," commented the patron.

"This soap," went on the attendant, picking up the cake thereof, "has been debacterialized, and the comb and brush are thoroughly antisepticized."

"Great scheme," said the patron.

"The chair in which you sit is given a daily bath in bichloride of mercury, while its cushions are baked in an oven heated to 987 degrees, which is guaranteed to shrivel up any bacillus that happens along."

"Hot stuff," said the patron.

"The razor and lather brush are boiled before being used, and the lather-cup is dry-heated until there is not the slightest possibility of any germs being concealed in it."

"Fine," said the patron.

"The hot water with which the lather is mixed is always double-heated and sprayed with a germicide, besides being filtered and distilled. It is as pure as it can be made."

"Excellent," said the patron.

"Even the floor and the ceiling and the walls and the furniture are given antiseptic treatment every day, and all change handed out to our customers is first wiped with antiseptic gauze."

"Well, look here," said the patron who had been sitting wrapped in the towel during all this, "why don't you go ahead and shave me? Think I'm loaded with some kind of a germ that you have to talk to death?"

"No, sir," answered the attendant. "But I am not the barber."

"You're not? Where is he?"

"They are boiling him, sir."—*Dietetic Gazette*.

MR. DOOLEY AND THE DOCTOR.

"TH' doek puts a glass chube in me mouth an' says: 'Don't bite it!'

"'D'ye think I'm a glass-eater?' says I, talkin' through me teeth like a Kerry lawyer. 'What's it f'r?' I says.

"'To take ye'er timprachoor,' says he. While I have th' chube in me mouth he jabs me thumb with a needle an' laves th'

room. He comes back about th' time I'm r-ready to strangle and removes th' chube.

" 'How high does she spout?' says I.

" 'Ninety-nine,' says he.

" 'Good hovens,' says I. 'Don't come near me, dock, or ye'll be sunstruck,' I says.

" 'I've just examined ye'er blood,' he says. 'Ye're full iv weeds,' he says. Be that time I'm scared to death, an' I say a few prayers, whin he fixes a hose to me chest an' begins listenin'.

" 'Annything goin' on inside?' says I.

" ' 'Tis ye'er heart,' says he.

" 'Glory be!' says I. 'What's th' matter with that ol' ingine?' says I.

" 'I cud tell ye,' he says, 'but I'll have to call in Dock Vinthricle, th' specyalist,' he says. 'I oughtn't be lookin' at ye'er heart at all,' he says. 'I niver larned below th' chin, an' I'd be fired be th' Union if they knew I was wurrukin on th' heart,' he says.

" So he sinds f'r Dock Vinthricle, an' th' dock climbs me chest an' listens, an' thin he says: 'They'se something th' matter with his lungs, too,' he says. 'At times they're full iv air, an' again,' he says, 'they ain't,' he says. 'Sind f'r Bellows,' he says.

" Bellows comes an' pounds me as though I was a roof he was shinglin', sinds f'r Dock Laporatteny. The dock sticks his finger into me as far as th' knuckle.

" 'What's that f'r?' says I.

" 'That's O'Hannigan's point,' he says.

" 'I don't see it,' says I. 'O'Hannigan must have had a fine sinse iv humor.'

" 'Did it hurt?' says he.

" 'Not,' says I, 'as much as though ye'd used an awl,' says I, 'or a chisel' I says, 'but,' I says, 'it didn't tickle,' I says.

" He shakes his head an' goes out iv th' room with th' others, an' they talk it over at tin dollars a minyit while I'm layin' there at two dollars a day—docked. Whin they come back wan iv thim says: 'This here is a mos' inthrestin' case an' we must have th' whole class take a look into it,' he says. It means me, Hinmissy. 'Dock,' he says, 'ye will remove its brain. Vinthricle, ye will have its heart, an' Bellows, ye will take its lungs. As f'r me,' he says, 'I will add wan more vermiform appendix to my belt,' he says. ' 'Tis sthrange how our foolish predecessors,' says he, 'niver got on to th' dangers iv th' vermiform appendix,' he says. 'I have no doubt that that's what kilt Methusalem,' he says.

" So they mark out their wurruk on me with a piece iv red chalk, an' if I get well I look like a rag carpet. Sometime they

lave things in ye, Hinmissy. I knowed a man wanst, Moriarty was his name, Tim Moriarty, an' he had to be hem-stitched hurriedly because they was goin' to a ball game that day, an' they locked up in him two sponges, a saw, an ice pick, a goold watch, an' a pair iv curlin' irons belongin' to wan iv th' nurses. He tol' me he didn't feel well, but he didn't think anything iv it till he noticed that he jingled whin he walked.

"That's what they do with ye nowadays, Hinmissy. Ivry time I go into Dock Fogarty's office he gives me a look that makes me wish I'd wore a suit iv chain armor. His eyes seem to say: 'Can I come in?' Between th' Christyan Scientists an' him 'tis a question whether ye want to be threatened like a loonytic or like a can iv presarved vigtibles.

"Father Kelly says th' styles iv medicine changes like th' styles iv hats. Whin he was a boy they give ye quinine f'r whatever ailed ye, an' now they give ye sthrychuine, an' nex' year they'll be givin' ye proosic acid, maybe. He says they're findin' new things th' matther with ye ivry day, an' ol' things that have to be taken out, ontill th' time is comin' whin not more thin half iv us'll be rale an' the rest'll be rubber.

"He says they ought to enforce th' law iv assault with a deadly weepin again th' doctors. He says that if they knew less about pizen an' more about gruel an' opened fewer patients an' more windows they'd not be so many Christyan Scientists. He says th' diff'rence between Christyan Scientists an' doctors is that Christyan Scientists thinks they'se no such thing as disease an' doctors thinks there ain't annything else. An' there ye ar-re."

"What a'ye think about it?" asked Mr. Hennessy.

"I think," said Mr. Dooley, "that if th' Christyan Scientists had some science an' th' doctors mor Christyanity it wudden't make anny diff'rence which ye called in—if ye had a good nurse."
—*The Doctor's Factotum.*

MR. C. H. MORTIMORE, who has had extensive experience as male nurse in several hospitals in England, and bears the best of testimonials from men high in the profession there, recently arrived in Toronto, and has taken apartments with Mrs. Mortimore at 84 Wellesley Street, Toronto. Both Mr. and Mrs. Mortimore are anxious to introduce themselves and their methods to the medical practitioners in this city, and will appreciate any opportunity extended to them. Mr. Mortimore is not only male nurse, but a masseur as well, both he and his wife being prepared to take any kind of case at current fees.

The Physician's Library.

BOOK REVIEWS.

Nothnagel's Encyclopedia of Practical Medicine. American edition. Diseases of the Stomach, by Franz Riegel, Professor of Clinical Medicine in the University of Giesen. Edited by CHARLES G. STOCKTON, M.D. Authorized translation from the German under the editorial supervision of Alfred Stengel, M.D. Philadelphia, New York, and London: W. B. Saunders & Company. 1903. Canadian agents: J. A. Carveth & Co., Toronto.

This volume, being devoted to subjects of such vital importance to all countries and climates, has been looked forward to with much anticipation. It is one of the largest, and will prove one of the most useful of the series constituting this important work. Yet, on examining it, one regrets that he cannot agree with the editor that "in simple, strong, and dignified language, the author has presented his subject with such sincerity and clearness that his views will meet almost invariably with ready acceptance." The work suffers in comparison with any of the older writers. Much of the first section of the work especially is anything but "strong and dignified in language, and clear in presentation of views," and to this is largely due the unnecessary size of the volume. The editor might well have followed the example of the editor of a preceding volume by sending the translation back for revision. This observation is justified by the frequent occurrence of such expressions as "led to the formulation of an incorrect diagnosis," "if the patient is obese, this renders the examination more difficult," "the favorite locations of carcinoma," etc. "Can" is repeatedly used where "may" is intended, as "the pancreas can simulate a tumor," "Cancer can be localized in other portions of the stomach." The additions by the editor himself are not free from equally objectionable forms of expression. These are serious blemishes which detract very much from the value of the book. In a work of such pretensions, quite as much care should be bestowed on the form as on the matter.

The volume begins with an account of the methods of examination in diseases of the stomach, and the directions are explicit. For inflating the stomach he uses a teaspoonful of bicarbonate of

soda and a little less of tartaric acid, each dissolved in half a glass of water. The tartaric solution is first drunk and then the soda one. He uses these large doses in order to make the outlines of the stomach both visible and palpable. This shows not only the position and size of the stomach, but also its relation to other organs, tumors, etc. He says he has never seen any disagreeable consequences from the method, but he keeps a stomach tube in readiness for an emergency. He prefers this method to that of inflation with air through a stomach tube. Many people find the drinking of the soda and acid solutions more objectionable than the passing of the tube; then the tube often has to be passed in any case to obtain the contents for examination. Again it takes some time for the CO₂ to be absorbed, while the air can be allowed to escape before the tube is withdrawn. With the latter also the degree of distension of the stomach can be exactly controlled. To the use of the stomach tube in diagnosis he attaches great importance. It is as essential to the physician as the stethoscope or thermometer. By its use we ascertain the size, shape, position and relationships of the stomach, its motor power, as shown by its power of emptying itself in due time, and the character of its secretions. To the quantity of hydrochloric acid present, he rightly attaches less importance than to the motor power.

The sections on diet and treatment are unnecessarily long, as much of them is repeated again under the several diseases. This repetition is a chief cause of the undue size of the volume.

Notwithstanding its many shortcomings, the volume is a valuable one, as it presents a fairly reliable account of the subject and few of the most recent contributions are overlooked.

The publishers have done their part well. The print is clear, and the paper is heavy, but has the strong odor of the preceding volumes.

A. M'P.

A Practical Text-Book of the Diseases of Women. By ARTHUR H. N. LEWERS, M.D. (Lond.), F.R.C.P. (Lond.), Senior Obstetric Physician to the London Hospital and Lecturer on Midwifery in the London Hospital Medical School; Examiner in Obstetric Medicine to the University of London; Examiner in Midwifery and Diseases of Women at the Conjoint Board of the Royal College of Physicians of London, and of the Royal College of Surgeons of England; University Scholar and Gold Medallist in Obstetric Medicine, London University. Sixth edition, with 166 illustrations, four colored plates, and 74 illustrative cases. London: H. K. Lewis, 136 Gower Street, W.C. 1903.

Although a great deal has been written on this subject of late, and many new and valuable books have been issued, yet this neat,

bright, and well-written volume is destined to fill a place which has been noticeably overlooked by many writers. This it does by virtue of its clearness and practicability. It is not a picture book, though it has a fair number of illustrations. It has what is much more valuable than the most correct photographs, namely, a number of good diagrams. These are of such a simple form that the reader at once grasps the general outline of what is aimed at, and it becomes fixed in his memory.

No space is wasted on detailed descriptions of the anatomy of the pelvis and pelvic organs. The writer takes it for granted that the student of gynecology knows his anatomy. He suggests not only the examination of all available cases of disease, but the examination of those cases which have been pronounced healthy. Without a perfect knowledge of the normal condition, it is impossible to study the abnormal. Another suggestion of decided value is that before beginning this subject at all, the student should take every opportunity afforded at post-mortem examinations to examine the relations of the pelvic viscera to each other in the cadaver. Dissection of these organs is suggested, and general rules are laid down as to what to dissect and how to dissect them.

The arrangement of the divisions of the subject seem to be in the natural order, from a clinical point of view. Beginning with the history of the patient, arranged in the form of question and probable answer, the reader is led on to the physical examination of the abdomen, ending with the special local examination. The diseases of the external parts of the vagina, the uterus and its appendages are all thoroughly gone into. Their diagnosis, prognosis, and especially their treatment, all contain valuable instruction. The author cites many very interesting and instructive cases which have occurred under his own immediate notice. These he rather apologizes for by saying that they are introduced, not only because he thinks they are helpful to the reader, but because they relieve the monotony of the more technical description of the subject. This is hardly necessary, as one of the strong peculiarities of this book is that it is not monotonous.

Flexions and versions of the uterus and their treatment by pessaries makes a very interesting chapter, and to many readers who knew the late Grailey Hewitt, will remind them strongly of his opinions. Sterility and its causes and cure are dealt with in an interesting manner, and the book is brought to a close with a chapter on the rest cure in neurasthenia.

This book must recommend itself to every student and practitioner, for in it he will find the gist of the whole subject written, not for the purpose of exhausting the subject, but providing a simple and lucid description of what too often is most elaborately

explained. The author evidently does not attempt to tell us all he knows, but merely gives us those points which he considers are of most value to the student and practitioner. A. J. J.

An Edition de Luxe of the Works of G. J. Whyte-Melville. Edited by the RT. HON. SIR HERBERT MAXWELL, Bart., M.P. Demy 8vo, gilt tops. The volumes are printed from new type on hand-made paper, specially manufactured for this edition, and handsomely bound in buckram with gilt tops. Limited to 1050 sets. Type distributed. Colored frontispiece to each volume on Japanese vellum, and full-page illustrations by Hugh Thomson, Bernard Partridge, H. M. Brock, C. E. Brock, Cecil Alden, G. H. Jalland, Harrington Bird, E. Caldwell, Fred Roe. Twenty-four volumes, \$84.00. London: W. Thacker & Co., 2 Creed Lane, E.C. London, Canada: T. Wilson Michelmores, 697 Colborne Street.

For those fond of out-of-door life, and there are a goodly number of medical men who can be counted as belonging to that class, there will be found few works that will prove as entertaining during winter evenings as those of G. J. Whyte-Melville, edited by Rt. Hon. Sir Herbert Maxwell, Bart., M.P. After spending some little time over the volumes, we say to our brother practitioners, Write without delay to Mr. T. Wilson Michelmores, 697 Colborne Street, London, Ont., and have a set forwarded by express. The price at which the entire set of twenty-four volumes is offered is little when compared with the genuine pleasure that will come to the purchaser, as he is able to sit in his smoking chair, toasting his toes, during the long dark winter nights, when the pack are safely housed over the cold weather, and the horn lies asleep in its leathern case, awaiting once again the voice of spring, when the music so dear to the heart of the hunting gentleman will be again heard throughout the length and breadth of the land. What can be more enjoyable to such a man than a sporting novel, especially one written by this king of novelists Whyte-Melville, who is now looked upon as being without a peer in his class?

The order of publication of the volumes is as follows: I.—Riding Recollections; illustrated by Hugh Thomson. II.—Katerfelto; illustrated by G. H. Jalland. III.—Uncle John; illustrated by E. Caldwell and H. M. Brock. IV.—Market Harborough; illustrated by Hugh Thomson. V.—Contraband; illustrated by Bernard Partridge. VI.—M. or N.; illustrated by C. E. Brock. VII.—Tilbury No-Go; illustrated by E. Caldwell. VIII.—Songs and Verses and Bones and I; illustrated by H. M. Brock. IX.—Black but Comely; illustrated by H. M. Brock. X.—The Brookes of Bridlemere; illustrated by Fred Roe. XI.—The White Rose; illustrated by Harrington Bird. XII.—Roy's

Wife; illustrated by Cecil Alden. XIII.—Satanella; illustrated by G. H. Jalland. XIV.—Digby Grand. Illustrated by H. M. Brock. XV.—Sarchedon; illustrated by Harrington Bird. XVI.—Rosine and Sister Louise; illustrated by H. M. Brock. XVII.—Kate Coventry; illustrated by H. M. Brock. XVIII.—Cerise; illustrated by H. M. Brock. XIX.—Queen's Maries; illustrated by G. H. Jalland. XX.—Holmby House; illustrated by G. H. Jalland. XXI.—General Bounce; illustrated by H. M. Brock. XXII.—Gladiators; illustrated by Harrington Bird. XXIII.—Good for Nothing; illustrated by H. M. Brock. XXIV.—Interpreter; illustrated by H. M. Brock.

Perhaps one of the best of the series is Vol. IV., containing two novels, "Market Harborough, or How Mr. Sawyer went to the Shires," and "Inside the Bar, or Sketches at Soakington." The volume is composed of over 400 pages, and in not one does the interest in any way flag.

The type, paper, and illustrations throughout are all of the best, and the set of twenty-four books makes indeed a handsome addition to any library.

Surgery: Its Theory and Practice. By WILLIAM JOHNSON WALSHAM, F.R.C.S. (Eng.), M.B. and C.M. (Aberd.). Eighth edition, with 622 illustrations, including 20 skiagram plates by Walter George Spencer, M.S., M.B. (Lond.), F.R.C.S. (Eng.), Surgeon to the Westminster Hospital. Philadelphia: P. Blakiston's Son & Co. 1903. Canadian agents: Chandler & Massey Limited, Toronto, Montreal and Winnipeg.

From its first appearance Walsham's "Surgery" has been a favorite both with students and practitioners. The author has a perspicuous style which is very acceptable to the mind in search of information upon abstruse subjects. The fact that already thirty-eight thousand copies of this work have been published, and that it is now in its eighth edition, speaks strongly in proof of the statement that it meets the requirements of the profession.

An examination of the book upon the subjects which are marked by most advancement in recent years, will show how thoroughly the book is brought up-to-date. This may be seen by a reference to such subjects as pyogenic organisms, separation of epiphyses, injuries of nerves, tendon transplantation, etc.

Viewing critically the author's teaching on the treatment of club-foot (page 1172), it must be considered less satisfactory. The foot of a young infant should never, for purposes named, be encased in plaster-of-Paris or other fixation apparatus. Till the time comes when the child is nearly ready to walk, manipulation is the only treatment to be employed. Such feet at best

are defective in development, and the constriction resulting from fixed dressings but emphasizes and increases the defect, while frequent massage and manual replacement of the foot will increase the range of rotation at the ankle and tarsal joints, and will further the natural development of the parts. As the walking period draws near, the deformity may be corrected in a short time, and the child be permitted to learn to walk on straightened feet, so that it is better that the surgeon should not directly intervene until about the end of the first year of life, or early in the second year.

The work pertaining to the eye and ear has been entrusted to those specially qualified to deal with those subjects. Full justice is done to the important subject of X-ray work as it must be in every up-to-date surgery. It may in all fairness be said that probably no "surgery" in English to-day affords a better general guide, and is more reliable in up-to-date information than this eighth edition of Walsham's "Surgery," edited chiefly by Walter George Spencer. The publishers' part is well done.

B. E. M.

Nervous and Mental Diseases. By ARCHIBALD CHURCH, M.D., Professor of Nervous and Mental Diseases and Head of Neurological Department, Northwestern University Medical School; and Frederick Peterson, M.D., President New York State Commissioner in Lunacy; Chief of Clinic, Department of Nervous Diseases, College of Physicians and Surgeons, New York. Fourth edition, thoroughly revised and enlarged. Handsome octavo volume of 922 pages, with 338 illustrations. Philadelphia, New York, London: W. B. Saunders & Company. 1903. Cloth, \$5.00 net; sheep or half morocco, \$6.00 net. Canadian agents: J. A. Carveth & Co., Toronto, Ontario.

The fourth edition of this excellent work is well worthy of its predecessors. The thorough revision has added all the latest information, and brought the work fully up-to-date. The combination of nervous and mental diseases in one volume is undoubtedly the best means of bringing these two branches of medicine before the student and practitioner since a proper comprehension of both can only be obtained by studying them together. This is especially evident in some of the functional neuroses, which in certain forms are frequently followed by mental derangement, a result which might have been obviated by the early treatment of these cases.

The chapter on motor neuroses is well done, the description of Thomsen's disease and of family periodic paralysis being remarkably clear and concise.

The chapter on the review of the recent problems of psychia-

try gives the latest and most authentic information regarding many of the important questions before the alienist of to-day. In the treatment of insanity, much that is practical and of great value is given. The question of isolation is fully discussed, and the benefit derived from the confinement of these patients to bed in the acute stage and combined with the rest cure is well described.

The illustrations are clear and well finished, the entire work reflecting much credit, not only on the authors, but also on the publishers.

We have much pleasure in recommending it to all students and practitioners who desire to keep *au courant* with the latest developments in these most important subjects. D. C. M.

Clinical Surgery for the Instruction of Practitioners and Students of Surgery. By A. J. OCHSNER, B.S., F.R.M.S., M.D., Chicago, Surgeon-in-Chief, Augustana Hospital, and St. Mary's Hospital; Professor of Clinical Surgery, Medical Department, University of Illinois. Cleveland Press (The Clinical Review Publishing Co.), Chicago. Canadian agents: Chandler & Massey Limited, Toronto, Montreal and Winnipeg. 1902.

It was with more than usual pleasure that the writer spent several evenings perusing Dr. Ochsner's "Clinical Surgery:" first, owing to having "rubbed elbows" with him for several years at the meeting of the American Medical Association, and in that way learning of his ability as an operator; and secondly, on account of the actual worth of the text-book as a reliable work "for the instruction of practitioners and students of surgery."

A book on surgery is increased in value just ten times when it gives the actual experience of the author himself, and depicts the methods he has employed in his own work. It is for this reason that Dr. Ochsner's book is valuable, in that it gives the reader a pen picture of the work carried on by him in his own clinic, and details his experience in the various operations, without their being advised as the only methods to be employed, but the ones that he has tried and tested, and not found wanting. Dr. Ochsner has not attempted to describe each and every operation upon the human body, because that would simply be a rehash and reiteration of what many other writers have already gone into. The book is, therefore, above all else, thoroughly practical, and will be found, for the reasons given, of immense value to the surgeon, who, from force of circumstances, is compelled to do a good deal of operating, and wishes to know just what the author would do himself under exactly similar circumstances.

W. A. Y.

Sir Henry Morgan, Buccaneer. A Romance of the Spanish Main. By CYRUS TOWNSEND BRADY. Author of "For Love of Country," "For the Freedom of the Sea," "The South-erners," "Hohenzollern," "The Quiberon Touch," "Woven with the Ship," "In the Wasp's Nest," etc. Illustrations by F. N. Marchand and Will Crawford. Toronto: The Copp, Clark Co., Limited, Publishers. 1903.

The edition is in a very attractive form, with numerous illustrations by F. N. Marchand and Will Crawford. The period of the story is somewhere about the year 1700, and deals with one of the many wild spirits of the time, Sir Henry Morgan, a fierce, ungovernable soul, who had caused himself to be knighted by unstinted donations of ill-gotten gold to the coffers of the "Merry Monarch," King Charles II.

Sir Henry then settled down to a quiet life as Vice-Governor of Jamaica, but on the accession of James II., was ousted from his position and rendered an outcast. He then gathered round him some choice spirits, former companions in piracy, and set forth on a last long cruise that was to realize all his fiendish desires and dreams.

A very pretty little love story adds much charm to the tale, one in which the Spaniard, the cruel desperado of the average romance, is made the hero. Throughout, the story is one of thrilling incidents, and culminates with the awful end of the arch-fiend, Sir Henry Morgan, brought about by one of his own band.

The interest in the story is sustained from first to last by the knowledge of the historical reality of the setting, and by the vivid, thrilling style of the author.

W. J. W.

The Four Epochs of Woman's Life. Maidenhood, Marriage, Maternity, Menopause. By ANNA M. GALBRAITH, M.D., Author of "Hygiene and Physical Culture for Women"; Fellow of the New York Academy of Medicine, etc. With an introductory note by John H. Musser, M.D., Professor of Clinical Medicine, University of Pennsylvania. 12mo volume of 247 pages. Philadelphia, New York, London: W. B. Saunders & Company. 1903. Cloth, \$1.50 net. Canadian agents: J. A. Carveth & Co., Toronto.

This work, written for the instruction of the laity on subjects of which every woman should have a thorough knowledge, is indeed a timely and excellent one. The fact that a second edition has been demanded in such a short time is sufficient proof that women have at last awakened to a sense of the penalties they have paid for their ignorance of those laws of nature which

govern the epochs of their lives. The language used is clear and comprehensive, yet, withal, modest, and the meaning easily grasped even by those unfamiliar with medical subjects. As a further aid a comprehensive glossary of medical terms has been appended.

In this new edition the author has made some excellent additions, viz.: A section on "The Hygiene of Puberty"; one on "Hemorrhage at the Menopause a Significant Symptom of Cancer"; and one on "The Hygiene of the Menopause." These sections make the work the very best on the subject we have seen, and physicians will be doing a real service by recommending it to their patients.

W. J. W.

Clinical Pathology of the Blood. A Treatise on the General Principles and Special Applications of Hematology. By JAMES EWING, A.M., M.D., Professor of Pathology in Cornell University Medical College, New York City. Second edition, revised and enlarged. Illustrated with 43 engravings and 18 colored plates drawn by the author. New York and Philadelphia: Lea Brothers & Co. 1903.

An immense amount of work has been done in recent years on the blood. The results of these experiments and discoveries have appeared in articles and monographs in various languages, and have, therefore, not been accessible to many readers. The author, about two years ago, made a very successful attempt to collect this scattered material, and presented it to medical practitioners and students of hematology in his "Clinical Pathology of the Blood." During the past two years, many valuable contributions to our knowledge of the blood have appeared, and these have now been incorporated in the second edition.

While much of this material may not directly assist the practitioner in his efforts to cure disease by therapeutic measures, yet it gives him a clear clinical picture of the character and nature of many of the pathological processes he is trying to combat, and thus makes his work far more scientific and intelligent. Every student and progressive practitioner should not merely read, but study thoroughly, this most excellent work on the blood.

A. E.

The Etiology, Pathology, Diagnosis and Treatment of Tumors. By A. HAMILTON LEVINGS, M.D., Milwaukee, Wis. Chicago: Cleveland Press. Canadian agents: Chandler & Massey Limited, Toronto, Montreal and Winnipeg.

This work is a rather finely got-up manual of over 800 pages. The paper is first-class, the typography excellent, and the illustrations very numerous and well reproduced. The only fault we have to find with the book-making part of it is that the type reading might have been a little closer, as it contains quite a number

of typographical errors—far too many, in fact, for a work of such a size and character.

In regard to the matter of the book, we cannot say that it is strikingly original, but it seems thoroughly up-to-date, and shows on the part of the author not only a wide practical acquaintance with the surgical side of his subject (for he is a practical surgeon), but also a commendable appreciation of the pure pathology of tumors, which unfortunately to-day so many surgeons lack. The ground covered by the author is very wide, and he includes, for instance, in his chapter upon Lymphomata, an account of the leucemias. Whilst here the description of the spleno-myelogenous type is fair, he is not so clear upon the lymphatic leucemia, and one would imagine from reading it that he confused the true lymphatic leucemia with Hodgkin's disease and the pseudo-leucemias.

J. J. M'K.

Saunders' Medical Hand Atlases.—Atlas of the External Diseases of the Eye. By PROF. DR. O. HAAB, of Zurich. Second edition, thoroughly revised. Edited, with additions, by G. E. DeSchweinitz, A.M., M.D., Professor of Ophthalmology in the University of Pennsylvania. With 98 colored lithographic illustrations on 48 plates, and 232 pages of text. Philadelphia, New York, London: W. B. Saunders & Company. 1903. Price, \$3.00 net. Canadian agents: J. A. Carveth & Co., Toronto.

Like almost all of Saunders' Medical Hand Atlases, that of the external diseases of the eye is a credit to its author. In too many instances is it the case that the general practitioner feels that, under no circumstance whatever, should he encroach upon the sacred field of the ophthalmologist, but in every instance refer even a case of simple conjunctivitis to his brother specialist. Dr. DeSchweinitz' atlas will be found of value in acquainting those who have not paid as much attention as they should to what lies within their field in external diseases of the eye, with knowledge that will prove, not only of the greatest assistance to them, but at the same time remunerative. The chromo-lithographic plates are excellent, and in themselves very instructive.

W. A. Y.

Anesthesia and Anesthetics: General and Local. By JOSEPH M. PATTON, M.D., Professor of Diseases of the Chest in Chicago Polyclinic; Associate Professor of Medicine in the Medical Department, University of Illinois. Chicago: The Cleveland Press. 1903. Canadian agents: Chandler & Massey Limited, Toronto, Montreal and Winnipeg.

The work under review is written to supply for the use of practitioners and medical students a concise, practical and up-to-

date guide in the important work of inducing surgical anesthesia. In a general way the author's attempt may be said to have been successful. Only one other work—that of Dr. Probyn-Williams—contains within the same space so much of practical value which should be, but which is not generally, known. In reading the work one is here and there impressed with the fact that the author could with advantage have been more dogmatic in his statements. For example, take this sentence: "Chloroform and its congeners are generally supposed to favor primary syncope where the sitting posture is assumed, and while this danger is probably over-rated, provided the respiration be eradicated and the anesthesia be not too profound or prolonged, it is best not to give chloroform in the sitting position, if it can be avoided." Let the author think of the ghastly and growing list of deaths under chloroform in the dental chair, let him recall Dr. Joseph Price's definition of an anesthetist as "one who takes a patient to the edge of the grave and holds him there till the surgeon completes his work," and in the next edition of this book he will at least cut out that last and most dangerous clause. The writer of this review has long taught that to allow a patient under chloroform to be raised to a sitting posture is to tempt Providence, to invite disaster and to trifle with human life. Notwithstanding this criticism, he commends Dr. Patton's book as one of the best yet issued on this subject.

N. A. P.

A Non-Surgical Treatise on Diseases of the Prostate Glands and Adnexa. By GEORGE WHITFIELD OVERALL, A.B., M.D., formerly Professor of Physiology in the Memphis Hospital Medical College. Chicago: March & Grant Company, Printers. Copyright, 1903.

Damage once done to the prostate by the knife is irreparable. "Better bear the ills we have than fly to those we know not of." Such is the opinion of the author. He does not, however, limit treatment of the prostate entirely to medicines, electrolysis, cataphoresis, etc., as he considers there are some neglected cases in which the use of the knife is indispensable; but conservatism in the use of the knife, and the use of ways and means by which to reach directly the seat of the disease are, in the author's opinion, the foundation for ultimate success.

The anatomy and functions of the prostate glands are carefully outlined, and the book is well illustrated.

The author adopts largely the plan of reporting clinical cases as a means of instruction for readers, some thirty-five cases being thus recorded, but these are brief, succinct, and readable.

This little book evokes considerable food for thought, the chapter on neuroses of the prostate alone being of sufficient interest to warrant its perusal by every thinking physician or alienist.

E. H. A.

A Manual of Medicine. Edited by W. H. ALLCHIN, M.D. (Lond.), F.R.C.S., F.R.S. (Edin.), Senior Physician and Lecturer on Clinical Medicine, Westminster Hospital; Examiner in Medicine, Naval Medical Service; late Examiner in Medicine in the University of London for the Royal College of Physicians of London and for the British and Indian Army Medical Services: Vol. V., Diseases of the Digestive System and of the Liver: Diseases of the Peritonæum and of the Vessels of the Abdomen: Diseases of the Kidneys, Diseases of the Ductless Glands. London: Macmillan & Co., Limited. New York: The Macmillan Company. 1903.

The more we read of "Allchin's Manual" the better we like it. The articles are all well written, are concise and very full. The first fifty-three pages are devoted to the general anatomy and physiology of the digestive organs, food and diet, and the bacteria of the alimentary tract. This makes a very useful introduction to the work. There are a number of illustrations, mostly of pathological conditions, three plates giving back and front views of abdominal viscera and tables showing levels of various abdominal structures in relation to the spines and bodies of the vertebra. There is also a table showing the vascular supply of the abdomen.

There is a staff of eleven contributors, including the editor, all men of the first rank connected with the various London hospitals.

We think "Allchin's Manual" the most useful work on medicine with which we are acquainted, and can, with confidence, recommend it to our friends.

W. J. W.

Encyclopedia Medica. Under the General Editorship of CHALMERS WATSON, M.B., F.R.C.P.E. Vol. XIII., Ulceration to Zinc Poisoning. Edinburgh: William Green & Sons. 1903.

This is the concluding volume of this interesting work. On account of the alphabetical arrangement alone, apart from the value of the care bestowed on the various articles, it necessarily followed that the volumes varied much in merit. This volume, though not the best, surpasses several preceding ones in merit. None of the subjects call for very long articles, but all are of practical importance. Among the most important contributions are: Vaccination, by Mrs. Garrett Anderson, in an admirable article which should disturb the "superior" consciences of the anti-vaccinationists; Visceral Pain, by James Mackenzie, of Burnley; and several articles on the uterus by as many writers. The book closes with an article on the Plague as an appendix.

The work, as a whole, will be found a safe and valuable aid by the general practitioner, especially the "busy" one, who has little time to read long articles or large books. The publishers' part is creditably done by William Green & Sons.

A. M'P.

Diseases of the Throat and Nose. By CHAS. H. KNIGHT, A.M., M.D., Professor of Laryngology, Cornell University Medical College, etc. Philadelphia: P. Blakiston's Son & Co. 1903. \$3.00 net. Canadian agents: Chandler & Massey Limited, Toronto, Montreal and Winnipeg.

The lectures given by the author at Cornell Medical College have formed the basis of this book. The fact that it was originally intended for the instruction of students leads to attention being given to many minor details which the general practitioner, whose training in this branch of medicine has usually been somewhat perfunctory, must learn by personal experience. Questions such as the choice of anesthetics to be used in removal of nasopharyngeal adenoids, and in tonsillotomy, are dealt with in unnecessary detail. Some six pages are given up to a description of the various methods and instruments used in removal of the tonsils. This prolixity gives a conversational tone to the book, which renders it easy of perusal, while enabling one to make an intelligent choice of one of the many methods in use. J. M.

Hygiene and Sanitation. A Manual of Hygiene and Sanitation. By SENECA EGBERT, A.M., M.D., Professor of Hygiene and Dean of the Medico-Chirurgical College of Philadelphia; Member of the Academy of Natural Sciences of Philadelphia; Member of the American Medical Association, etc., etc. Philadelphia: Lea Brothers & Co. 1903.

Modern scientific achievements in the realm of hygiene and sanitation are doing much to improve the condition of the race, and Seneca Egbert's practical little volume, which is just published, gives a *resume* of the comparatively recent discoveries in the realm of practical hygiene.

Personal hygiene and school hygiene are not neglected by the author, while the usual chapters on bacteriology, ventilation, heating, water, food principles and beverages, the removal and disposal of sewerage, military hygiene and vital statistics, and the examination of air, water and food, are treated in a manner suitable for the use of students, clergymen, teachers, and others interested in the public health. E. H. A.

The Medical Record Visiting List, or Physician's Diary for 1904. New revised edition. New York: Wm. Wood & Co., Medical Publishers. Canadian agents: The Chandler & Massey Limited, Toronto, Montreal and Winnipeg.

The most important change in this new revised edition is in the list of remedies, and their maximum doses, in both apothecaries' and decimal systems, and the indication of such as are

official in the United States of America. In addition to this, there is the usual condensed list of information, which is convenient for ready reference by the physician or surgeon for emergency work.

The visiting list, with special memoranda, is arranged for thirty patients a week. It is a well-bound and compact physician's diary and visiting list.

Wathen's Epitome of Histology. A Manual for Students and Physicians. By JOHN R. WATHEN, A.M., M.D., Professor of Surgery, etc., formerly Professor of Histology and Pathology, Kentucky School of Medicine, Louisville, Ky. 12mo, 220 pages, 114 illustrations. Cloth, \$1.00 net. Lea Brothers & Co., Publishers, Philadelphia and New York. 1903.

This little work contains the main facts of histology. It is essentially a condensed treatise, and is well adapted to serve as an aid to students and others in reviewing this branch of medical study. A short chapter is given to the technique of preparing and staining tissues. The book contains many good illustrations.

A. E.

Physician's Pocket Account Book. By J. J. TAYLOR, M.D. Philadelphia: The Medical Council, 4105 Walnut Street.

This book is suited for the pocket so that the physician may at all times have a patient's account with him. Each patient is given a page, and there is an index for names. By this system only one book is used. The page under patient's name gives a full record of services rendered, and amounts received on account. There is no posting at the end of the month, as that is covered by the daily entries. An account may be made up at a moment's notice and in this way time, and often money, saved. The system is very simple, and fulfils every requirement of the busy physician.

W. J. W.

The Silver Poppy. By ARTHUR STRINGER. Toronto: William Briggs.

An interesting story of a young Oxford man's life as literary hack, newspaper drudge and author, in New York City, entwined with an atmosphere widening from studio Bohemia to millionaire-dom, and a love story well told with the strength of a man's point of view, and an awakening as merciless as the thrust of a surgeon's knife.

Glimpses of Toronto; Picturesque Trinity. By the REV. C. B. KENRICK, M.A. Toronto: Geo. N. Morang & Co., Limited, Publishers.

We can hardly imagine a nicer or more acceptable Christmas or New Year gift to send to any old graduate, who claims Trinity

University as his *Alma Mater*, whether in medicine or arts, than a copy of "Picturesque Trinity." The Rev. Mr. Kenrick is to be congratulated upon his work. The glimpses of Toronto are simply beautiful, and each one is so well executed that it will be valuable as a keepsake.

The Heart of Rome. By FRANCIS MARION CRAWFORD. Toronto: The Coppy, Clark Company, Limited. Cloth, \$1.50.

An entertaining book, very suitable for a New Year's gift. Just enough plot to form a background for a beautifully-sketched love story, and enhanced here and there by a glimpse of Rome, the proportions of light and shade, in view and narrative, perfectly maintained.

PAMPHLETS RECEIVED.

Laboratory of the Inland Revenue Department, Ottawa, Canada.
Bulletin No. 88, Paris Green. 1902-3.

Laboratory of the Inland Revenue Department, Ottawa, Canada.
Bulletin No. 89, Flavoring Extracts. 1903.

Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States for the Fiscal Year, 1900. Washington: Government Printing Office.

Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States for the Fiscal Year, 1901. Washington: Government Printing Office.

THE firm of Chandler & Massey Limited recently purchased the business of Paterson & Foster, Phillips Square, Montreal. Mr. J. Daker Paterson will act as manager of the Montreal branch of The Chandler & Massey Limited, at 8 Victoria Street in that city, where a full stock of everything in physicians' supplies will be found. The Chandler & Massey Limited recently opened up another branch at 279 Fort Street, Winnipeg, Man., and are already doing a splendid business out through the West.

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Original Contributions.

INTERNAL MEDICATION FOR DIRECT REMEDIAL EFFECTS.*

BY GEO. M. AYLESWORTH, M.D., COLLINGWOOD, ONT.

At the American Medical Association in May last, Dr. Solomon Solis Cohen, in his address as chairman of the Section of Materia Medica, Pharmacy and Therapeutics, said: "Under all circumstances it must be kept in mind that neither morbid agents nor remedial measures add anything to the powers possessed by the body. They alter, they invoke the natural actions and reactions—the vital processes of disease and recovery; but it is the living body that determines the nature of the disease process—it is the living body that determines the nature of the process of recovery."

Admitting this, it matters not whether Byron Robinson ("The Abdominal Brain": The Clinic Pub. Co., Chicago, 1899) is right when he claims that the ganglionic system generates a form of nerve force separate and distinct in character from that generated by the cerebro-spinal system; or Schofield ("The Force of Mind": Churchill, London, 1902) that the functioning of organs are all manifestations of unconscious mind, for it will hardly be questioned that the ganglionic system is the agent through which life influences the functions of organs.

When Hahnemann, as a regularly educated physician, announced his idea in therapeutics (*Similia similibus curanter*), the profession had been for a long time a unit in pursuing methods of cure that are now universally condemned. When he proceeded to demonstrate that this idea had an element of truth in it by his

*Read at meeting of the Canadian Medical Association, London, Ont., September, 1903.

success in treating disease, he met a storm of opposition, if not persecution, which caused him to narrow curative measures down to this one idea, which resulted in the extraordinary absurdities of his later teaching. While this idea is undoubtedly sometimes seemingly true, it has never been proved to be universal, as claimed by him and his followers. It would be too much to ask this proof, did they not assert its universality so strongly, and treat with disdain every remedial measure not originating in it. At the same time it is difficult to see why we should not admit its seeming truth and utilize their ideas and methods for the relief and cure of our patients in so far as they may be found useful.

Again, in the early sixties of the nineteenth century, C. J. B. Williams, a highly educated regular physician, published his principles of medicine, in which he clearly enunciated the idea that disease was an excess, a defect, or a perversion of normal life. Although this work of Williams was so notable that it was widely adopted in medical colleges as a text-book, this idea of his did not impress the profession as it should. Some ten years later, however, one Scudder, a practiser of the methods of Thomson, the basis of whose treatment consisted in excessive emesis, diuresis, diaphoresis and purgation, induced by poisonous doses of lobelia and steam-baths, re-enunciated Williams' idea in this way: "Disease is wrong life, wrong life is excess, defect or perversion." Adding to this the intensely practical corollary that the medicines needed to cure excess were sedatives; defects, stimulants; perversion, alteratives; and then inventing the phrases "specific diagnosis" and "specific medication," he became the founder of a new school of medicine—the eclectic, having now about 10,000 adherents.

That these ideas were steps towards direct medication and advances in therapeutics there can be no doubt, but their promulgators meeting the same reception from regulars and homeopaths as had been accorded Hahnemann by the regulars, shut their followers up to these ideas, antagonising all other work in the therapeutic field, at the same time claiming the broadest eclecticism.

The writer hopes that the mentality of the mass of the profession in the three schools has sufficiently developed by this time to ignore these narrow vistas, and to adopt what is useful from all sources without prejudice. How the refusal to do so proves, even now, a brake upon the wheels of therapeutic progress can best be elucidated by reviewing the different measures employed by the three schools in the treatment of some common disease.

Selecting colic at random, we find that Gould defines colic as "spasmodic pain in the abdomen." Intestinal colic is due to irregular and violent contractions of the muscles of the bowels. Byron Robinson says these contractions are controlled by Auer-

bach's ganglia through the plexus mysentericus. C. J. B. Williams says disease consists of excess, defect, or perversion of normal life, necessitating, according to Scudder, sedation, stimulation, or alteration, for cure.

Intestinal colic, then, is either perversion due to excess, or perversion due to defect in the nervous energy generated in Auerbach's ganglia. Experience has shown that medicines making directly for the correction of these two distinct conditions are by far the most successful in the treatment of intestinal colic.

Why are they not adopted by all practisers of medicine? The query is a fair one, for we have men in each school of equal honesty, energy, mental grasp and self-sacrificing devotion to curative measures, who not only cannot endorse each other's conclusions, but are inclined to think each other dishonest because they cannot.

Leaving aside causes of deranged nerve force, such as the ingestion of too many green apples, which, of course, must be removed, let us glance at the treatment of intestinal colic. The regular schoolman would relieve his patient by using morphia, which only reaches the condition to afford relief by paralyzing sensation, which is a function of the cerebro-spinal nervous system. This means that the force from Auerbach's ganglia may still be acting abnormally, but owing to the paralysis of sensation due to the morphia, the brain is unable to report the condition to the patient's consciousness. This is almost an exact parallel to the use of chloroform in labor, where painful uterine contractions continue to the end of accouchement, but the patient does not know it, because the chloroform does not permit the nerves of sensation to perform their duty.

The homeopath would prescribe colocynth in a minute dose (3x to 30x dilution), because he knows that in a large dose it will produce similar symptoms. When colocynth fails, as it often will, he may adopt the eclectic remedy, *dioscorea villosa*, with but moderate success, because he gives it in too small a dose (1x to 1 gtt. of the tincture).

The eclectic would prescribe the *dioscorea* in large doses (5 to 30 min. of the tincture) because adherents of the school have found it efficacious. When it fails, as it often will, he prescribes with prompt success the minute dose of colocynth, because he has known homeopaths to prescribe it successfully. Colocynth and *dioscorea* act directly upon Auerbach's ganglia, and when they succeed they do so at once, without apparent effect upon the economy beyond relieving the painful contractions permanently.

These three methods of treatment of the condition known as intestinal colic are all seemingly successful. What is the explanation? The cause within the organism of the condition is either

the defect or excess of function in Auerbach's ganglia to a point that causes them to lose control of the rhythmic muscular action in the intestines. The regular school treatment is not directly curative at all. It merely deadens the pain, enabling the patient to endure it long enough to let the disturbed nerve force recover itself, as it naturally tends to do. The morphia does not increase this tendency but makes the patient comfortable for the hours or days nature requires to accomplish the cure without assistance.

The colocynth of the homeopath meets a depressed nerve force and directly stimulates it until it reaches the norm, the extremely minute dose being a safeguard against over-stimulation, for, as is well known, a sufficiently large dose would produce the difficulty if absent, or increase it if present.

The dioscorea of the eclectic meets an excited or excessive nerve force, and directly sedates it to the norm, the large dose being useful to produce the effect quickly.

In these instances colocynth and dioscorea are *directly* curative, morphia is not.

In the use of colocynth the homeopath and the eclectic are on equal terms, because the eclectic adopts the minute dose of the homeopath. In the use of dioscorea, the homeopath is heavily handicapped by his faith in dynamization, and the resultant minute dose, for if he does not fail completely with it, it takes him much longer to cure than it does the eclectic with the much larger dose, which the homeopath refuses to adopt.

If you will, for the sake of argument, admit that the foregoing views are sound, you will be able to see that while each of the three schools may have therapeutic truth, neither one of them has the whole of it. And if you will reason the matter out from the foregoing data, you will understand why it is so difficult for one schoolman to influence the adherent of another school. A regular schoolman, called to a case of intestinal colic, due to depressed Auerbach's ganglia knows that morphia will relieve, but is not directly curative, and is more or less injurious. Possibly he also knows that eclectics claim that dioscorea cures colic. He therefore gives the latter remedy for several hours, with absolutely no effects, if (because he has a depressed nerve force) he is fortunate enough not to have made his patient worse. Disgusted, he gives a hypodermic of morphia, with the prompt effect of relieving the pain, and confirming himself and his patient in their belief in the beneficence of regular school therapeutics. Later, he is called to another case of colic due this time to an *over-stimulated* Auerbach's plexus. In the meantime, in his search for something better than morphia, he has learned that homeopaths use with success minute doses of colocynth for colic. He administers it faithfully, with results similar to those he obtained when he gave

dioscorea. But he is quite oblivious of the fact that though the diseases in both cases are called colic, the conditions present are diametrically opposed to each other. Now, homeopaths and eclectics might as well try to batter down Gibraltar by butting it, as to try to convert a regular schoolman, who has had this experience, to their way of thinking about colocynth and dioscorea, unless they can present some better arguments than they have hitherto been able to do. He has but one reason for his obstinacy, and wants nor needs any better—"I've tried 'em both, and they are no good."

A homeopath is called to a patient with colic due to an *over-stimulated* Auerbach's plexus. He knows that colocynth in a minute dose will *sometimes* cure colic, and persists in its administration without benefit until his fear of dismissal from the case induces him to try dioscorea. His training and his faith in dynamization teach him erroneously that if dioscorea will cure at all, it will do so in the minute dose. He therefore gives it in the first or higher dilution, instead of from five to thirty drops as an eclectic would, and he meets with absolutely no results. In this instance, at least, his theory of dynamization fails him, but instead of realizing the fallacy of his theory, he is filled with disgust for eclectic therapeutics. If a *true* homeopath and honest, regular school therapeutics are, of course, entirely out of the question.

An eclectic knows that dioscorea *sometimes* cures colic, but when it fails because of a depressed Auerbach's plexus, he tries colocynth in the homeopathic dose with success, knowing little and caring less as to the reason why. But when a regular schoolman urges him to use morphia, and points out its beauties when introduced through a hypodermic needle, he laughs him to scorn; and, if pressed for his reason, exclaims: "What! make my patients drunk with morphia to cure cramp? I don't have to."

Is it not clear that narrowness of view dissipates energy and prevents progress in this instance?

While the facts just presented can easily be substantiated, the reasons adduced for their existence, as far as the writer is aware, are original with him, and as the use of colocynth in the minute dose and the use of dioscorea in any dose may not be familiar to some, it may be wise to illustrate the principle involved by as old and respectable a drug as ipecacuanha. The laity, as well as all three schools of medicine, have long been familiar with its power to produce emesis, in large doses. It was this power that induced Hahnemann to use it to cure vomiting in the minute dose. This use of it was made widely known to the regular profession twenty or more years ago, by Sidney Ringer, and has been adopted by both regulars and eclectics. *The U. S. Dispensatory*

says that "Ipecacuanha, in small doses, is a stimulant to the stomach."

We will now assume a normal organism, and begin to administer the drug in gradually increasing doses. At first the dose is so small that no appreciable effect is produced, but at a certain point, as the dose is increased, a sense of warmth is experienced in the stomach. As the dose continues to increase, we have successively nausea, secretion of mucus, emesis, paralysis of over-stimulation, the last effect being used medicinally by regular schoolmen to relieve dysenteric tenesmus. Now, assuming we have an organism in which the nerve force in the stomach is depressed enough to produce nausea and vomiting, we will begin to give ipecacuanha. In the minute dose which, in the normal organism, produced no appreciable effects, its stimulating or irritating action gradually raises the nerve force in the stomach to the norm, and nausea and vomiting cease. Increase the dose and they will be reproduced from an over-stimulated condition of the nerve force.

Ringer wrote in his handbook: "Few remedies are so efficacious as ipecacuanha in checking certain forms of vomiting." As to the kinds of vomiting, he says that in adults they are (1) vomiting of pregnancy; (2) nausea and vomiting during lactation; (3) nausea and vomiting at menstrual periods; (4) the morning vomiting of drunkards; (5) morning vomiting of general weakness, met with in convalescents. Hare, in his "Practical Therapeutics," p. 235, 1897, confirms these observations. The one etiological element which is common to all these conditions, is the depressed nerve force in the stomach, manifesting itself by nausea and vomiting. Ipecacuanha, through its local stimulating effects, removes this etiological factor, and thus makes directly for cure in all these conditions, so long as the dose is kept just too small to stimulate the stomach beyond the normal, producing over-stimulation. In the latter event the symptoms would be reproduced.

Should the nausea and vomiting be caused in the first instance by an irritant, over-stimulation is already present, and therefore ipecacuanha, in any dose, is useless as a means of relief, if it does not increase the difficulty. If this be true of ipecacuanha, there are many drugs that act on the same principles. Does there seem to be any good reason why all three schools should not adopt all three methods of administration, where the interests of the patient dictate, and the characteristics of the drug permit, in the same way that ipecacuanha has been adopted?

THE PHYSIOLOGICAL GENERATIVE CYCLE OF WOMAN.*

BY JENNIE G. DRENNAN, M.D., ST. THOMAS, ONT.

By those who believe in evolution,, and there are surely few in the scientific world of to-day who do not, there is observed a constant, slow and gradual changing of the functions and structures of the animal in accordance with changes in its environment—"structure is determined and preceded by function," and function is determined by environment. If an animal is to live in the water it must swim, therefore it must have structures to enable it to do so. In the generative system, as well as in any of the other systems of which the animal is composed, changes in structure due to changes in environment occur. Adaptation and heredity are the two factors which cause the changes wrought by evolution. If the environment be a good one, the adaptation to it improves the animal, and it is wise that the results of such an adaptation be handed down; but if the environment be a pernicious one, it is a misfortune for adaptation to it to occur, and also a misfortune that such shall be handed down to posterity. Unfortunately, evolution works backwards as well as forwards, and adaptation to error, as well as to right, occurs. Every people passes through its stages of "uncivilization, civilization, and decivilization." In this our day of vaunted enlightenment, we are prone to overlook errors of environment, and to fancy that we are always adapting ourselves to what is for our good; and that there can be no stage of decivilization for us. "A greater nation there hath not been." Nations may come and nations may go, but we are to remain forever; but as surely as the sands of time flow slowly away, it will be our fate, unless—and this does not seem probable—we bend our minds diligently and sincerely to the task of ordering our lives according to natural law, to our beneficial environment.

In every phase of life evolution is manifested, but it is to it in the generative system of woman that I shall confine my thoughts. The physiological, generative cycle is comprised of three factors: ovulation, pregnancy, and lactation, one of these being completed before another is commenced. When ovulation, the first factor in this cycle, is in progress, the greater portion of the blood in the generative, circulatory system is directed to the ovaries, which are in a condition of physiological congestion; every normal physiological act is accompanied by a physiological hyperemia. Ovulation being completed and fecundation having occurred, the con-

* Read at meeting of the Canadian Medical Association, London, Ont., September, 1903.

gestion is transferred to the uterus, and, upon the termination of pregnancy, is transferred to the mammary glands for the performance of the function of lactation by them. To every one of these three organs, ovaries, uterus and mammary glands, an active hyperaemia, under the control of a healthy nervous system, is necessary for the free and normal performance of its functions. If from any cause this normal cycle is interfered with, and more blood than is required to keep the non-functionating organs, or those which should at this time be in a non-functionating state, in health, is directed to them, then the one supposed to be in an actively functionating state is deprived of its normal amount of blood, and its functionating power is lessened.

Ovulation, with its attending sexual excitement, is to the mammal what blossoming is to the plant, an evidence on the part of each that a seed is ready for impregnation. With mammals other than the human species, ovulation is confined to distinct seasons—the mating times of the year or years. Among the lower forms of mammalian life, fecundation usually occurs and is followed by pregnancy and lactation; on the termination of the last, ovulation again occurs, the time between two ovulations being determined by the length of time necessary for pregnancy and lactation, the lowest orders requiring shorter periods for development *in utero*, and for sustenance by their mammary secretion after birth. This is the physiological, generative cycle of mammals; but in the female mammal—woman—this physiological cycle is interrupted by a lesser cycle, a monthly one, ovulation and menstruation, which is a pathological condition arising out of a non-adherence to natural law. In the most primitive humans this lesser cycle occurs only occasionally, and the normal physiological cycle is generally maintained; but as the scale of civilization is ascended, the reverse occurs, and the lesser cycle predominates. Ovulation precedes menstruation, and the latter is an evidence that impregnation has not occurred; it is the depletion of a hyperemic, uterine mucous membrane, which, on the occurrence of ovulation, was being prepared for the reception of the impregnated ovum; every menstruation is the sign of a disappointed pregnancy, and is therefore an abnormal state. It does not occur in the other forms of mammals, save in a few anthropoid apes living in captivity.

There has been much discussion as to when ovulation occurs in the human mammal. My own opinion is that it occurs at the middle of the intermenstrual period, about 12 or 14 days from the commencement of the previous menstruation. This opinion has been formed by observing cases of intermenstrual pain; in noting in cases of chronic and acute pelvic disease marked exacerbations of symptoms at this time; and in the apparently healthy, slight

leucorrheal discharge, or mammary tenderness and enlargement, generally of one gland, leading one to believe that ovulation is a unilateral function; the human uterus, moreover, shows evidences of being intended to normally house but one fetus at a pregnancy. By some this leucorrheal discharge at this time is considered to be due to the discharge of the unimpregnated ovum from the uterus; but this, I think, occurs about two weeks later at the menstrual period, and that the intermenstrual discharge is due, as are also all of the other above-mentioned menstrual symptoms, to a compensatory congestion induced in these other organs to relieve ovaries, which, in a pathological state, cannot accommodate the physiological hyperemia incident upon ovulation. In the perfectly healthy woman this would not occur; but where in civilization is she always to be found? In neurotic patients one may notice an exhilaration or depression as the individual case may be, corresponding to this period; the Levitical law is another indication in favor of the occurrence of ovulation at this time. In the civilized human we find thirteen menstruations during the year, denoting that thirteen ovulations have occurred, this order being interfered with only by the interruption of the greater cycle. Ovulation, then, is a monthly phenomenon in woman. Why this more frequent occurrence in an animal whose offspring requires a longer time for development *in utero*, and for sustenance by the mammary secretion after birth? Should one not naturally expect ovulation to occur at very much longer intervals? Such would be the case if natural law had been, and were now, obeyed; if an adaptation to a pernicious environment had not occurred, and if this adaptation had not been handed down by heredity.

We have seen that in the lower forms of mammalia ovulation occurs at distinct periods of the year, and occurs at no others. There is every reason to believe that in primitive woman such also occurs; the fact that even in civilization more births occur in the spring and autumn, indicates an adherence to natural law. In Europe the maximum number of conceptions occurs in May and December, and the results of the May conceptions possess a greater amount of vitality than those of any other month, those of September having the least. Mating with primitive woman is much the same as it is with the brute creation; as soon as she is sexually mature she marries and enters upon the physiological, generative cycle of a mammal, one factor of this cycle following the other as night the day and day the night. As she nourishes her child by her mammary secretion for two years at the least, ovulation then would not re-occur until the end of the period of lactation; that is, ovulation would occur about once every three years. Primitive people do not produce large families—the production of such is a sign of the non-adherence to

natural law, and is in itself as unnatural as the present-day small family, which, unlike that of savagery, is not a physiological, but a pathological, outcome. As the scale of civilization is ascended, mating becomes a more difficult matter. Many exigencies, which must be considered, slip in; but while this difficulty in mating would cause a disappointed pregnancy once in three years in the unmated, this is not to blame alone for the occurrence of the non-physiological cycle. In the married aspirant to civilization, a disregard to natural law has arisen, and error has slipped in, which is handed down. As a race becomes more artificial in its mode of life, it becomes a more sexually-inclined race. Every factor of life is then sought as a source of pleasure. The most primitive people eat to live, but civilized man too often lives to eat, and this principle is seen in every phase of his existence. The sexual element becomes adapted to the new state of life, and heredity hands down an increased functioning of the ovarian portion of this system, until at length menstruation is a monthly phenomenon, and the lesser cycle predominates, interrupted only at times by the physiological and greater.

Primitive woman has an economic value which civilization takes from woman, though there are signs that the woman of civilization is returning to a possession of this value under different and higher circumstances. She keeps herself. Woman's engagement in industrialism does not prevent her from reproducing her kind. Woman in savagery is the industrial factor, while man is engaged in militarism; but, as civilization is entered upon, he assumes the charge of industrialism, and woman gradually loses her economic value. Now matrimony and maternity are alone left to her. Now every act of her life, her whole education, is a preparation for these. This condition of affairs leads to an increased stimulation of her sexual nature; function is determined by environment, and structure is determined by function.

The sexual, social and religious life of a people are closely interwoven. Among primitive people religious feasts were really sexual orgies. In our civilized state we indignantly refuse to recognize any connection between the three; but it is existent. What effect the moon may have had in determining this monthly ovulation cannot be definitely stated; but moonlight nights are those chosen for pleasure, and bringing the sexes together. The savage, weary with the chase, sought his couch as the bird his roost, but civilized man turns night into day. With the increasing demands of a higher mode of life mating becomes a more difficult matter, and festivals became more frequent. The social life of civilization interferes with the performance of the function of lactation, many mothers refusing, on account of social duties, to nourish their own offspring. A few years ago it was a fad not

to do so, but, fortunately, the fashion has turned. The period of lactation is not as long as it should normally be—only seven, eight, or ten months, instead of two years—but we find that if a mother does nurse her child for a longer time, the child suffers. What is the cause of this? It is simply due to the fact that ovulation is again taking place, and that the amount of blood necessary for the performance of the function of lactation is not present in the mammary glands, and that the supply of mammary secretion is deficient in quantity and quality, and is not adequate for the demands of the child. Every child has its dietetic rights, *in utero* and after birth. When the period of lactation is lengthened, and all causes which would excite an abnormal ovulation are removed, the normal physiological cycle of woman will be that in common occurrence, and the abnormal will disappear. By adaptation and heredity will the error be removed.

Beatson's cure of inoperable cases of mammary cancer is based on an appreciation of this physiological cycle. If preventive medicine is to be practised, a physiological understanding of the human body must be possessed by the profession, and we, the physical leaders of the people, must teach them according to natural law. The effect of mind upon matter, and matter upon mind, is daily becoming more apparent to the leaders in scientific thought. The body must be studied from a psychological, as well as from a physiological, point of view; and gynecological disorders have their psychological causes, as do those of other portions of the body. The sexual element is so interwoven in the being of all that it must influence the organism in many ways. By the untiring efforts of Mr. Havelock Ellis much has been accomplished along this line. Delicate subjects are generally neglected, but ignorance is no excuse in the laity, nor is false modesty any excuse in us.

THE FINSSEN LIGHT CURE.

BY H. JOHN STEWART, M.D., CHICAGO, ILL.

HAVING read and heard so much about the Finsen Light treatment in the cure of disease, I decided in April of last year to make a personal investigation to see and learn for myself if it was true that such diseases as lupus and rodent ulcer could be cured by light. I visited several institutions where the Finsen Lamp was in operation. In Manchester, England, in the Salford Skin Hospital they had a Finsen Light department, under the supervision of Prof. Brooke, who informed me they were unable to treat half the sufferers who applied for treatment, and they had solicited by public subscription, \$125,000 for the erection of a new hospital for skin diseases, where they would be able to enlarge the "light department" so at least 200 people could be treated daily, as there were people on their waiting list whom they would be unable to treat, with their present facilities, for an indefinite time. Prof. Brooke was most enthusiastic over the wonderful results they were obtaining there.

I next visited the London General Hospital, of London, England, and found they were just completing an immense light department, that had been established by the present Queen of England, then Princess of Wales, in 1900, who presented the first lamp at that time, and as it was found to be far too inadequate, she had just given a second lamp, and Alfred Harmsworth had also given \$50,000 for the perpetual endowment of another Finsen Lamp in this department, and they were then building a platform to receive the King and Queen, whom they expected to come June 11th to dedicate this new department, and even with these increased facilities, I was informed by Prof. Sequirey, there were patients on the waiting list who were unable to receive treatment.

I next visited the Light Institute at Copenhagen, and found that all the statements that had been made regarding it were not in the least exaggerated. I had the pleasure of meeting and studying under Prof. Finsen himself, and was extended every courtesy by Prof. Finsen and his assistants at this institution. He seemed very much pleased to describe in the minutest detail the apparatus, treatment, etc., and gave me a detailed history of the Finsen Light.

The Finsen Light is a large specially constructed arc lamp of 20,000 candle-power, or twenty times stronger than an ordinary street lamp, and uses from sixty to eighty amperes of current. This lamp burns a specially made carbon, which can only be procured at Copenhagen. In the upper holder is a large carbon,

while a smaller one is used in the bottom holder; when properly adjusted for arcing, a maximum number of violet and ultra violet rays are produced. The advantage of the Finsen Light over others is in the greater number of violet rays produced. The Finsen Lamp produces a much greater number of chemical rays than sunlight, as the atmosphere absorbs a large percentage of these rays. The light is so intense it is impossible to look at it with the naked eye, and it is necessary for all the attendants and patients to wear dense smoked glasses while the lamp is in operation; an aluminum hood about two feet wide surrounds the lamp, which hood is fringed on its lower border with a deep crimson colored paper skirt to further aid in excluding the diffused light from the patients.

The concentrated rays are carried from the arc to the patients through four telescopic tubes, known as converging tubes, suspended at an angle of forty-five degrees, the tubes containing a series of rock crystal lenses so arranged that reservoirs for running water exists between them. By means of the water screen and rock crystal lenses, all rays but the violet are eliminated, and these rays are converged and concentrated, thus vastly increasing the healing and bactericidal effects.

The heat from the original arc is so intense that to prevent cracking of the lenses and discomfort to the patients, a stream of cold water is kept constantly circulating through the reservoirs or water screens.

To further concentrate and cool the rays a compressor is provided, which consists of two rock crystal lenses, so arranged that a chamber for running water exists between them. This part of the apparatus is used to compress the affected area, and make it bloodless during the treatment, thus facilitating deeper penetration. The Finsen arc light has been used with marked success in curing many skin diseases, thought until this time incurable, especially lupus and rodent ulcer. During a period of six years the Finsen Medical Light Institute at Copenhagen has grown from a very small shed, where they were only able to treat one patient at a time, to a magnificent institution, where they are now treating three hundred people daily, and light institutes have been established in London, England; St. Petersburg, Russia; Paris, France, and Chicago, Illinois, where they are all carrying on a similar work to the parent institution.

It has been a popular belief that lupus was a very rare disease, and common only in the northern countries, and although it was supposed there was no lupus in London, yet the hospitals are now treating 175 daily, and the management was compelled to instal two more lamps and build a separate department, so great has been the demand from people seeking relief. Lupus was con-

sidered very rare in the United States, but since the establishment of the Finsen Light Institute in Chicago the author is informed they have been taxed to their utmost capacity, and they, too, have found it necessary to increase their facilities, as there are now patients on the waiting list who are not able to receive treatment. It seems but a question of a short time until light institutes will be established in every large city in America, because it has proven so efficacious in many other skin diseases, besides lupus and rodent ulcer, such as acne, alopecia-areata, localized eczema, chronic ulcers and nevus. The treatments are given while the patients recline on couches. By firm pressure with the compressors on the tissue to be treated, the blood is removed, and more heat can be borne and deeper penetration produced; this compression has another important advantage in that the bactericidal effect is greater, because it has been shown that the corpuscles absorb a considerable portion of the rays and thus prevent deep penetration.

The affected area is placed about ten inches from the distal end of the converging apparatus, and the treatments, or seances, as they are called, take about one hour daily in lupus and rodent ulcer, and in other skin diseases from ten to twenty minutes, depending upon each individual case.

The results attained have been hardly less than marvellous since from carefully compiled statistics covering a series of over 800 cases of lupus treated at the Finsen Institute, an overwhelming percentage of cures and an insignificant number of failures is shown, and Prof. Finsen goes so far as to say that in lupus-vulgaris cures can be obtained in 97 per cent. of cases, even where the whole face is involved. In these 800 patients, with ages ranging from 5 to 74 years, the average duration of disease was eleven years. This treatment has an advantage over the X-ray in that there is no danger of burning, and consequent sloughing. With the light treatment we are dealing with a known quantity, while with the X-ray we have an unknown quantity with uncertain action.

The light treatment causes no pain; a red erythematous spot and blister appears where the light is applied, and in five or six days the scab falls off, and the ulcer is healed beneath, and the skin is left free from scar or cicatrix, but red; the redness, however, after a variable period fades, and leaves the skin white and uncontracted, except where there has been a loss of tissue from the disease before treatment.

In conclusion, the author would state that the possibilities for the light treatment in the curing of diseases are still unknown, and believes in a limited time it will take an exalted position in the field of medicine and surgery.

Selected Articles.

MUSKOKA FREE HOSPITAL FOR CONSUMPTIVES.

BY "LALLY BERNARD," TORONTO.

"The truest-spied arrow
Winged by Fate,
Most cruel to harrow,
Is named 'Too Late.'"

EVERYONE, I think, has one especial form of human suffering dreaded more than all others. I have always, for those I love and for myself, had the most terrible dread of consumption. I can conceive of no more terrible form of lingering death than that of the consumptive, and I know of no cure more beautiful in its principles and practice than that of sanatoria treatment of this disease. Every beautiful, cleanly, healthful inspiration, mental, moral, and physical, is comprised in the treatment of tuberculosis to-day. I am no believer in the efficacy of human suffering. I recognize its virtues only inasmuch that it is fought and conquered by God-like attributes—by the devotion of men and women to their suffering fellows, by high courage and steadfast purpose, which sordid ambition does not engender. I found in both the Muskoka Cottage and the Free Hospital for Consumptives youth and courage, the sunshine of human hearts, and a sort of unexpressed belief that if "God's in His Heaven, all's right with the world."

FOOLISH FEARS.

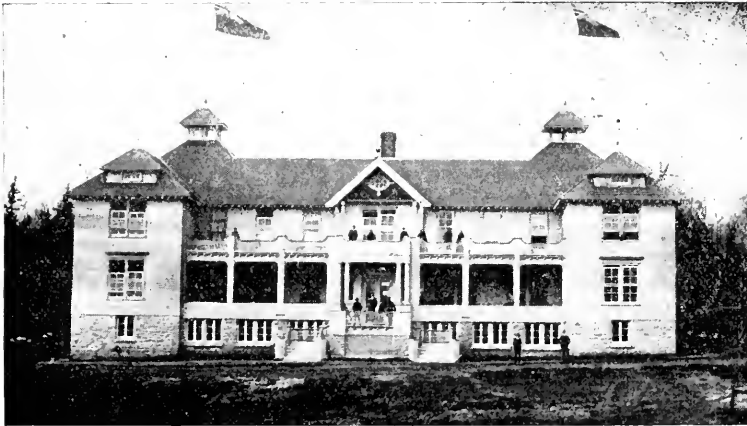
Fifteen minutes' drive through the woods on a beautiful September morning brought me to the front entrance of the Free Hospital for Consumptives, opened on April 22nd, 1902. I was to enter as a "free patient," and my reasons for doing so are very simple. In the first place, I wished to testify that I had absolute faith in the statement of the men who have given years to the study of the subject, that nowhere is one safer from the danger of infection from tuberculosis than in a well-run sanatorium, where the disease is being fought, and in many cases conquered, by the inmates and staff. Secondly, I had only a short time at my disposal, and there is no accommodation for guests at the free hospital, and I knew that, as an onlooker, that curious restraint which

one always feels when "visiting" a hospital would hamper my efforts to get to the very core of the question I was so interested in. I confess that when I and my trunk were deposited at the foot of the high flight of steps which lead up to the great gallery opening from the main floor of the great building, my heart sank, and I would fain have beat an ignominious retreat, not from the fear of infection, but from the fear of coming into close contact with human suffering that I was powerless to help, and the feeling that I was admitted under false pretences, even though those in supreme authority knew and approved of my plan. So great was my trepidation that to this moment I cannot remember which member of the staff it was who came and welcomed me. I only know that I was conscious of a matron in a charming fresh white frock, a white-robed and capped nurse in charge, and a lady secretary in smart attire, of the many inquiring eyes of a group of women patients on the verandah, and of finding myself in a cool hall, where one of the young girl patients was arranging great pots of spreading ferns in the wide brick fireplace. There was the air of a spotless summer hotel—not the slightest suspicion of "medicated odors" one associates with a hospital, and in a quick glance I saw that a suitably furnished drawing-room was to my right, with windows opening on to the wide gallery, and that the secretary's office was on my left, with a few bookcases filled with books, which formed the library of the institution. I felt by instinct that my "*mauvais quart d'heure*" was yet to come in that little office—and it did! In the secretary's hands should have been forms from the central office of the association in Toronto, one from my parish priest, or some person of authority, showing my claim to enter as a "free patient," and one filled in by my family physician, which would give the doctor in charge the information of immense importance to him. None of them was forthcoming! The doctor in charge was absent, and I had to endure the position of one of those poor patients who are flung upon the compassion of the staff of the Free Hospital when the right mode of procedure has been neglected.

WHEN APPLYING FOR ADMISSION.

I must digress to say at this point to any one who reads this column, that every medical practitioner and all the clergy in the Dominion should make it their business to inform themselves of the mode of procedure and the character of the application to be made to Mr. J. S. Robertson, Secretary, National Sanitarium Association, Mail Building, Toronto. It seems absurd to reiterate this in an article of this kind; but not three hours' journey from the Hospital I found a leading merchant in a town who had never heard of the institution! It is bad enough to be weak and ill after

a long journey to a strange place, but to find one's self in an institution where the staff has nothing in readiness for one, and where it is doubtful if there is a bed awaiting one, is really terrible. That is just what I felt through a stupid error of my own. I faced a perplexed and kindly group composed of the nurse, secretary, and matron. I was finally ushered into a great sunlit ward, where eight beds, four on each side, stood about six feet apart. A strip of carpet, a chair, and a small stand with two drawers, a bed, wider than the usual "single bed," of white enamelled iron, with a nice white quilt and fine bed linen, and a great warm extra blanket of grey for cold nights, formed the equipment for each patient. A locker later on would be put at my disposal in the hall, and my trunk in the basement trunk room would be accessible twice a week. My coat and hat I would hang in the lavatory,



MAIN BUILDING, MUSKOKA FREE HOSPITAL FOR CONSUMPTIVES.

with the four wash basins, its one small mirror, and its shelf where tooth brushes and medicine bottles were kept. Two towels were hung on a rack by my bed. The nurse brought me a small tin cuspidore with a spring top, and a package of paper folders, which formed the movable lining of this most important feature of the battle against tuberculosis. The same receptacle for expectoration is used in both institutions, and the first directions have reference to the extreme gravity of the orders concerning collection and disposal of "sputum." I can see the average reader shudder at the recital of what seems a disgusting feature of this dread disease, but, believe me, the most fastidious and delicately nurtured of women, once they realize the meaning of the word "infection" in connection with consumption, will ever more regard this term, once so objectionable, in the same light as "ulceration," or "pus" from a poisoned wound. This small tin cube, about the size of an

ordinary cup, was the constant companion of each and every patient. The rules in this respect were exactly the same as at the Sanatorium. Patients going any distance from the institutions carried pocket flasks of glass, with spring tops, which replaced the more cumbersome tin receptacle. The morning after the arrival of the patient, the inner casing of the receptacle was removed, wrapped carefully in a double layer of paper, neatly tied up and marked with the patient's name, and left for the doctor to examine under the microscope. I had watched Dr. Elliott, in the Cottage Sanatorium, examine the expectorations of a newly-arrived patient, and without any uneasiness, for under these conditions there is no fear, unless the infection be introduced through a cut finger. On the result of the doctor's examination of the sputum, the order of treatment would largely depend, but, as in the Cottage Sanatorium, there had also to be the examination of the chest and lungs and throat. Before this took place I was told never to cough without my hand before my mouth, and always to wash my hands carefully before handling food of any kind.

HOW THE PATIENTS LIVE.

Coughing was discouraged as much as possible—all the rest the lungs could get must be had; and I found that in the Cottage Sanatorium, with one or two exceptions, coughing was seldom heard. This was to me amazing, and put all my preconceived ideas of consumption to flight. When the doctor did not order the sputum to be kept for examination the small paper receptacle was wrapped and neatly tied in a parcel and deposited in a covered zinc can which stood near the lavatories, and each morning that can was emptied into the furnace made for the purpose, and consumed. The doctor had fully examined me in his office, and I was taken to the great open gallery where the patients almost live. Here a group of patients gathered about a table, where working, writing and reading materials, and the ever-present sputum receptacles were placed. What shall I say of the kindly manner of introduction of the "new patient," and the gentle, courteous manner of reception? Only this; that it gave one that sensation known as "a lump in the throat." And then followed a period of intense depression, a sudden realization of the situation, of the extraordinary accumulation of human sorrow and intense anxiety which this terrible disease brought into the lives of those who from childhood had known the struggle for existence. I instantly understood why I saw at the Free Hospital more "acute" cases than at the Sanatorium. There were those about me who could not afford to pay for the seclusion and comparative isolation from their dear ones which the rich could, and it is to separate this class from the

"incipient" cases that the Association are getting in readiness the hospital on the banks of the Humber in Toronto. The lunch bell rings, and two or three of the patients considered well enough by the doctors act as waiters and waitresses, and bring milk to those who are not strong enough to go for it; others go to the dining-room, removed some distance from the living rooms. The men who inhabit the several shacks, in which there are four beds, come strolling past the great gallery, which, by the way, I am not supposed to stray from for a week after my arrival. The hot September sun blazes down on the stretch of lowland at the foot of the slope upon which the hospital is built. Everything about the grounds is still in "the rough"; every cent is needed to buy the necessaries, and I learn that a ward is condemned to lie idle while



VIEW OF WARD, MUSKOKA FREE HOSPITAL.

applicants clamor for admission, simply because there is not money forthcoming to enlarge the supply of drinking water.

PATIENTS AT MEALS.

At dinner I sat between a man patient, who had been admitted some weeks before with a tubercular throat, and an athletic-looking youth, who, I was told, was going through alternate periods of hope and fear regarding his condition. There were four tables full of patients in the light, airy dining-room, who were waited upon by patients "told off" for duty. The fare was clean, wholesome, and in sufficient quantity, the table and service just what one might expect at a respectable country hotel. But, as at the Sanatorium, the majority of the patients looked young, and I defy any one but a specialist to diagnose their trouble from their

appearance. When their appearance tells the sorry tale, then it appears the disease is "acute." No one coughed at the table; when the necessity arose I noticed that the patient left the room for a few minutes. Japanese table napkins were used, and burned after each meal.

The conversation was fairly animated, and I was struck by the kindly attention given to my requirements by my neighbor, whose hoarseness was terrible to hear. We remained at the table for not less than twenty-five minutes. After dinner a pretty inmate of my ward came to tell me that we were expected to rest from one to three, the same routine as at the Sanatorium. I regret to say I broke the rule, and climbed up among the pines and firs on the top of the rocks near the hospital, as the longing for seclusion, for the chance to "think" out the thousand and one



TAKING "THE CURE" AT THE MUSKOKA FREE HOSPITAL.

problems which crowded upon me, seemed irresistible. I was met on my return before the tea hour with a gentle reproof from another patient, who kindly offered to teach me "the ropes." There had been afternoon lunch, and before the tea hour I had a chance of conversing with some of my fellow-patients, learning from them the history of their "cases." Only once did I detect a hopeless note, and that was the case of a very young girl, who said: "I caught it from my sisters, who died from it; I slept with them during their illness."

The evening meal was again just such as one might have had at a fairly good country hotel—two kinds of meat, hot buns, stewed fruit, celery, milk or tea, as the patients chose. We again sat and chatted on the verandah, several of the men patients joining the group. Milk and biscuits, or some light refreshment, were given before retiring. By bedtime the *role* I was playing had

become absurdly real; the joys, sorrows, and difficulties of this little world had become mine. To add to the reality, a "gouty sore throat," my usual travelling companion, asserted itself with vehemence, and I became a genuine "patient," receiving treatment in the throat room, where the apparatus is wonderfully complete.

NIGHT IN THE HOSPITAL.

What of that wakeful night in the pearly dimness of the great white ward in the Free Consumptive Hospital? The windows were flung open wide to the freshness of the September night, and the myriad sounds of insect life in the woods were drowned from time to time by the terrible fits of coughing from one of the patients. Four quite young women occupied the beds on the opposite side of the room, merry, light-hearted school girls, one would have said, were the truth not known. Just for once in my life I longed for really great riches. How much, how very much, could be done to lighten the tedium of the long months in a consumptive hospital of this kind. Croquet grounds, golf grounds, gardens, poultry yards, all kinds of pets, horses and sleighs, snowshoes, toboggans, boats, ammunition for the shooting club, everything that men of wealth and leisure consider necessary to their happiness, would mean so much, so very much, in inducing people to stay the length of time really necessary for the "cure." The library should be full of those scientific magazines which our educated artisans have seldom time to read. Many of the men would feel that they were improving their minds as well as their bodies, if only help of this kind were given. So many are young, almost lads, and how they could be helped by those more fortunate than themselves!

I digress, but for the two nights I spent in the ward my mind was occupied by such thoughts, and I give them for what they are worth. Morning found us at a quarter to seven in the lavatory, where orders were that a good sponging with cold water and a vigorous "rub" were to be carried out. One small mirror had to serve for the eight women, and the neat dressing of luxuriant heads of hair. Surely from some woman who knows the joy of plenty of looking-glass, a mirror three feet wide and four feet long will be forthcoming? Breakfast at a quarter to eight, beds to make, and a general tidying up. Then came the same routine: a certain number of patients told off for dining-room work, the lunches, meals, hours of rest and exercise: a hurried glance at the small, plainly furnished quarters of the staff; after tea a boat row with two of the patients; another night in the great white ward, a night again crowded with thoughts of what might be done by concerted efforts of rich and poor. Morning brought the announce-

ment that I was "discharged," free of tubercle bacillus. Good-byes to the patients I had learned to like and know during my short stay, to the doctor and staff, and my experience at the hospital, a free patient in a free hospital, was at an end.

THE NEW HOSPITAL FOR WOMEN, LONDON.

"CITOYENNE," in writing, December 5th, to *The News*, as to the new Hospital for Women in London, England, says:

There is grave anxiety over the condition of the German Emperor, in spite of reassuring bulletins, which are daily sent out from Berlin. On Saturday last, I was present at the unveiling of a tablet to the memory of the father and mother of the unfortunate Emperor. The tablet was to be put up in the cancer ward of the new Hospital for Women, Euston Road. The tablet was to commemorate a bed endowed in the name of the Emperor and Empress, who were the victims of this dire disease, and the unveiling took place at an unfortunate moment, when the attention of the public was called to the sufferings of the present Emperor, and the similarity of his trouble to that of his father. The ceremony was interesting from the fact that it was the first tablet of a public character which had been erected in England to the memory of a Crown Princess whose name was identified with nearly every movement for the advancement of women. It was this zeal in the cause of the higher education of women which brought about much of the unpopularity of the late German Empress among her husband's subjects. Germans viewed with distrust the widening of woman's sphere. The clearly defined limitations of the women-kind, who hitherto insured their homes being havens of rest and comfort, was threatened, and they were fearful that the new order of things might deprive them of the material comfort which matrimony insured for them.

The Hospital for Women has been in existence for about twenty years, and thousands of patients pass through it every year. I was rather struck by the "unhospital" aspect of the entrance hall and the corridors. Everything was tinted ivory and a soft shade of green. This tinting appeared uniform throughout the building. The immense wards were circular, heated with hot water pipes, and with fireplaces in the centre, standing, as it were, back to back, built into the great central shaft which prevented patients from seeing each other across the room, and gave more privacy to each individual than is usual in a public ward. Here again the walls were of hard cement, and tinted green, with a washable paint. What I thought a decided mistake from a sanitary point of view, were the great plaster bas-reliefs let into the

walls of the ward, and in such high relief that the ward nurses must have had plenty of work trying to dust off the figures and keep them free of germs. In other respects the hospital was really beautiful. The operating room was a marvel of cleanliness, and I noticed that the immense hot-water coils were coated with smooth paint, and each pipe far enough away from the other, and removed a sufficient distance from the wall, to allow a perfect cleaning every day. This is a vast improvement upon the horrible unsanitary coils or radiators which adorn our hospitals and houses, made of a metal which has rather a rough surface, and covered with senseless ornamentation and paint, which simply attract the dust, and which, in the majority of cases, are placed so close to the wall and at such a height from the floor that you can neither clean under them or behind with satisfaction.

The kitchen was at the top of the building on the same floor as the cancer ward. There appeared to be very few private wards. But the greater number of the nurses were gentlewomen, many of them members of titled families, and in some instances I was told that "sister" had been known in the world as "Lady So-and-so." Possibly many people will remember the opposition with which the establishment of a hospital for women, with women doctors on the staff, met with, Sir William Jenner being one of the most active opponents. To-day his daughter and Lady Jenner are two of the most devoted friends of the institution. I was introduced to Mrs. Scharlieb, M.D., M.S., now the most famous lady surgeon of London. She has been lately appointed as physician for the diseases of women to the Royal Free Hospital, an appointment for which, I am told, the present Queen is mainly responsible, as she felt the Royal Free Hospital should have this department under the care of a woman. Mrs. Scharlieb is not a young woman, and I marvelled, as I looked at her, at the amount she had accomplished in her professional career. How shall one describe her? She was of the modest, old-fashioned type, rather tall and slender, with a quiet pensive face; a woman whom one would readily pass by without comment of any sort. She wore a bonnet of the kind which women in the early part of the last century considered they should wear when past the age of forty. Her cloak gave one the same impression of a willingness to accept the milestones of age as they arrived. And yet this is a woman who is called in to perform the most delicate operations by the eminent surgeons of London. All the staff of the hospital are women, and they were present at the ceremony over which the Princess Henry of Battenberg presided, wearing their scarlet gowns, with bright blue bands, and all looking as if they enjoyed themselves immensely.

Everyone in London to-day is talking "Radium," and it is

little wonder, for throughout the hospital world there is more than a rumor current that radium means the discovery of the curative process of cancer, that dread disease which has baffled medical science for ages. Remember, I use the term "curative process," not cure. In London there are only about twenty grains of radium, and the smallest purchasable quantity is £10 worth. The tube sent to the Fulham Hospital for Cancer by an anonymous donor, must have cost many thousand pounds. Austria has created a sort of corner in radium, and forbidden the export of the ores in which it is found. Radium in daylight looks like greyish dust, but in the dark it radiates light. Gold, platinum, and precious stones have now only half the value of radium. It is again a "light cure," and something which suggests moral as well as physical healing.

But enough of sorrow, suffering, and possible healing. London, as Mrs. Fawcett said in her address at the Woman's Hospital the other day, struck a new corner as a great division of life and death; one was always coming in contact with suffering and death, as well as with intense energy and vitality.

One more word about the new Hospital for Women. As I passed through a pretty courtyard, I saw the door of a small chapel open. It was a small mortuary chapel, built, in memory of a son he lost, by a carpenter who had worked about the hospital for years. It was, of course, a mortuary chapel, but on the altar there were lights and flowers, and over it a huge crucifix. The pall which covered the bier in the middle of the room was of pale mauve with a deep violet cross embroidered in the centre. A door led from the chapel into the post-mortem chamber, but everything was done so decently and in such order that one felt the friends of the patients who died must have felt the comfort and soothing it brought. It is true that in Canada we have more denominations than one finds in England, but surely our hospital chapels might have something of a more sacred character about them than they have to-day.

Sanitarium By-law.—The City Clerk has made the following official return of the vote in Toronto on the Sanitarium by-law :

	For.	Against.
Ward 1	558	471
Ward 2	681	581
Ward 3	517	495
Ward 4	909	889
Ward 5	1,027	926
Ward 6	742	669
Total	4,434	4,031

Proceedings of Societies.

CLINICAL SOCIETY OF THE NEW YORK POLYCLINIC MEDICAL SCHOOL AND HOSPITAL

THE President, Dr. James Hawley Burtenshaw, occupied the chair at a meeting of the above Society held December 7th, 1903.

Erythromelalgia.—Dr. J. C. Lynch presented a patient suffering from red, painful extremities. About four years ago the patient had severe burning pains, first in the right and then in the left foot. The pain was intensified by standing or walking, and several months later he noticed that the painful areas were red and swollen, and that the base of the great toe was violet after exertion. Two years ago the middle toe of the left foot was amputated because of the great pain. The toes of both feet are red; over the metatarsophalangeal articulation, the skin is of a violet hue; the superficial veins are prominent and the parts are painful to pressure, but do not pit. When the feet are elevated the congestion disappears, to return when the feet are dependent. Sensibility and thermal sensation are not disturbed. The patient's condition improves during the cold weather.

The speaker said that the pathology of this condition is not well understood. Wier Mitchell considers it a vasomotor disturbance. It is probably due to a peripheral neuritis of the branches of the plantar nerves associated with diseased blood-vessels. Most of the cases so far recorded have occurred in men during middle life. Long hours of standing, associated with hard work, worry and exposure to various temperatures are important causative factors. Various infective diseases, such as gonorrhea, malaria, syphilis, etc., may also be important factors. It also occurs as a symptom in certain organic diseases of the central nervous system.

Erythromelalgia may be confounded with Pick's erythromelia and the stage of local asphyxia of Raynaud's disease. In erythromelia, there is a circumscribed reddening of the skin, followed by venous dilatation, confined to the extensor surface of the extremity. There is absence of pain and increased surface temperature, and no change on altering the position of the extremities. In Raynaud's disease, 80 per cent. of those afflicted are women. It begins with local ischemia; pain may be absent or acute; it has no relation to position; it is unaffected by season. In many cases

the symptoms are brought on by cold. It is anesthetic to touch, surface temperature is much lowered, and there is symmetrical gangrene.

General Paralysis of the Insane—This patient, also presented by Dr. Lynch, illustrated the promptness with which the luetic poison attacks the central nervous system. The patient, 27 years of age, had a sore on the penis, which was cauterized, and he was given "pink tablets." This treatment made him much worse, and he consulted another physician, who gave him black ointment to rub in every night. He continued this for about three weeks, when his eye became sore and painful, and he consulted an oculist, under whose care his eye improved, but his throat became affected. The oculist sent him to another physician, under whose care he remained for about three months, when he lost his voice. He then consulted a specialist on the throat, and continued under his care until he became demented. The essential features of his disease are that it began with a series of epileptic seizures, on recovering from which he was affected by temporary aphasia and paralysis, which disappeared in a few days, and was replaced by marked mental impairment. The mental condition gradually improved, until he was prostrated by another seizure. He cries continually, wants to go to school, and is unable to answer any questions intelligently.

Dr. W. B. Pritchard opened the discussion, saying that, in his opinion, the difference between Raynaud's disease and erythromelalgia is one of degree and sometimes symptomatic, but that the essentials of the conditions are identical.

Dr. M. Packard said that these cases are much more common than is ordinarily supposed. He had seen seven of them in the Polyclinic Dispensary during the preceding summer. The pathology of erythromelalgia and Raynaud's disease is practically the same, being an obliterating endarteritis. They are all due to contraction, as Mitchell showed in 1870. Two cases of this nature in Dr. Sach's clinic developed into gangrene. In Raynaud's disease the pain is stabbing, while in erythromelalgia it is constant. Several cases of erythromelalgia were sent from the Hospital for Ruptured and Crippled with a diagnosis of flat-foot, owing to the character of the pains, and while these patients may have had flat feet, treatment by the Whitman brace only irritated their condition, due to the pressure it exerted. Cold water and potassium iodide proved effective, but the most successful agent in dilating the arteries was nitroglycerin.

Dr. Pritchard, in referring to the second patient presented by Dr. Lynch, said that he would like to call attention to a point of much interest to neurologists in the development of general paresis. Twenty years ago, if a diagnosis of general paresis was

made, it was safe to assume that the patient could not live more than two years, but to-day it is reasonably certain that he would be alive ten years from the date of the diagnosis. For this transformation, the speaker knows of no explanation. Another point of interest is that some years ago, before it was safe to make a diagnosis of general paresis, the patient must have shown some symptoms of grandiose delusions, but to-day nearly 50 per cent. of the patients suffering from this disease are without any delusions of grandeur whatever, and the condition is gradually tending toward a type that will be relatively free from such delusions.

Epilepsia Loquax.—Dr. Pritchard presented a patient suffering from this condition, aged forty-five years. He said this was the only case of the kind he had ever seen. About nine years ago, the patient began to suffer from attacks of vertigo and sudden pallor, the first of which was brought about by a shock. These attacks continued at irregular intervals for five years, when, at the onset of an attack, a spasm of the face was added to his other symptoms. He has continued to have these attacks with increasing severity and frequency up to the present time, when they assumed the type he proceeded to describe; the patient's face becomes very pale, twitching begins over the left eye (a few years ago the twitching had been over the right eye, and it had been transferred to the other side of the face); then the muscles of the whole face begin to twitch, the hands become fixed, and a most profuse diarrhea of speech follows, with perfectly distinct articulation continuing for a minute and a half. This is followed by characteristic semi-coma lasting for an hour or two, when the man's condition becomes normal. There is absolute loss of memory from the occurrence of some incident preceding the pallor until the awakening. The centre of explosion in such cases, it is assumed, is in the region of the centre of speech (Broca's convolution). Usually epileptics do not talk, yet this patient's only evidence of epilepsy is in his talking.

Dr. D. S. Dougherty said that while he had charge of the epileptic wards at the New York City Insane Asylum, Ward's Island, one patient would have seizures in a corner, remain rigid for a moment, and then talk incessantly for two or three minutes, have a slight twitching, fall, and the attendants would put him to bed and he would sink into natural slumber.

Aneurism with very Unusual Collateral Venous Circulation.—Dr. Morris Manges presented a patient for Dr. Lynch. The man was forty-eight years old, with the following history: He complains of pain through the chest and backbone, which is intensified on pressure. He first noticed this symptom six months ago, and it was followed, three months later, by pain over the heart and dry, brassy cough. Ten years ago, he had a typical chancre.

Physical examination reveals a large mass occupying the upper right part of the chest, which, on palpation, is seen to have some expansile pulsation. On either side of the mid-line of the abdomen there is a double set of enormously dilated and tortuous veins representing a caput Medusæ. Nor is this the only evidence of pressure; some of the upper veins are enlarged, also the veins of the back, especially on the left side. There is also a marked enlargement of the veins of the upper extremity, less marked on the left side. Examination of the heart shows the apex beat to be in the sixth space. Over the tumor nothing would lead one to suppose it was an aneurism except the slight expansile pulsation. One hears nothing except the heart sounds sharply accentuated. Deep palpitation behind the episternal notch is negative, and Oliver's sign is absent. In a case of this kind one would naturally think of an aneurism, of a gumma or other neoplasm. A new growth can be eliminated on account of the situation of this enlargement, and the conclusions given. The question of gumma may be eliminated because of treatment, the patient having had iodides without any results whatever. Considering the history, the only inference would be that it is a case of sacculated aneurism filled with an enormous amount of blood-clot. As to the collateral venous circulation, one's first conclusion would be that something is obstructing the iliac veins. The speaker had recently seen two cases beginning with either obstruction of the portal circulation, or of the inferior vena cava. He had seen a number of cases of obstruction of the portal circulation and of the vena cava, but ascites had been a more or less pronounced feature in most of them. The marked venous collateral circulation in this case could be explained only by the presence of a large mass compressing both superior and inferior cavæ. This would be caused by the presence of a large aneurism of the ascending aorta, of which the external evidences are to be seen in the sternal tumor. The fact that there are so few symptoms is caused by the aneurismal sac being filled with a very thick layer of organized blood-clot.

Dr. R. H. M. Dawbarn said that this case was particularly interesting because of the anastomoses. He had never seen so typical an instance of the caput Medusæ. He said that there were a dozen ways whereby the venous blood may, in obstruction of the portal veins (exit), pass the liver and re-enter the inferior vena cava. In his opinion, a more important one of these in accounting for the caput Medusæ than the instance mentioned by the speaker, is the circulation from the liver to the belly-wall, through the reopened umbilical vein of fetal life. In about 20 per cent. of such cases, this cord again becomes a vein. In the case of the patient before the Society, he thought that perhaps a small gumma of the liver in the region of the portal vein might account for the

venous distention. Much larger doses of potassium iodide must be given before one could eliminate it as a cause. The fact of it being an aneurism would point somewhat toward tertiary syphilis, but so frequently is the cause of producing atheroma of the arterial walls. He did not consider the absence of ascites, even with great portal venous stasis, as effectually destroying the diagnosis of a gumma in the liver.

Dr. Albert Kohn said that he was impressed with the lack of symptoms of aneurism, even though the mass were filled with blood-clots. Pulsation was very slight. The hypertrophy of the heart might be explained by arterial sclerosis of specific origin. Undoubtedly there was pressure on some of the larger trunks supplying the upper extremities, but before making a diagnosis, it should be considered that the treatment had not proved anything. The patient should have iodides in increasing doses, up to 100 or 200 grains a day, or even more, and injections of bichloride of mercury and salicylate of mercury. Very often injections of mercury will give results when iodides have absolutely no effect.

Dr. Packard suggested that the venous varicosities on the chest and abdomen were due to pressure on the internal mammary vein, with an anastomosis of the superficial epigastric.

Dr. Manges said that he still thought it was an aneurism. If it were a gumma also it would have eroded the ribs or the sternum.

Displaced Liver and Kidney.—Dr. Kohn presented a case of displaced liver and kidney. The patient, when she first appeared at the clinic, two years ago, gave a history of what was then diagnosed as colic lithiasis. The gall-bladder could be distinctly felt. Some time ago she again presented herself, and, on examination, the liver was found to extend down to the umbilicus, and the dullness to begin at the eighth space. On making a slight palpation over the edge of the liver the gall-bladder was found beneath the edge. The kidneys could be felt displaced into the right iliac fossa. The entire process had occurred within the last two years.

Dr. Brooks H. Wells said he had had a similar case in which a diagnosis of fibroid uterus had been made. Upon examination, the upper edge of the liver was found to be two inches above the umbilicus. He made a median incision from the lower edge of the liver, got hold of the round ligament at its insertion into the liver, passed a suture of kangaroo tendon over it, so placed that it could be pulled back and forth, and then pushed the liver into its proper place. The patient made an uncomplicated convalescence.

Gall-Stone Ileus.—Dr. Manges presented specimens from this case. The patient was a man of fifty-eight, who a few months before had had an attack which his physician had considered to be appendicitis. About a week before he was seen by Dr. Manges he

had abdominal pain and severe attacks of vomiting at irregular intervals, and there was no movement of the bowels for about a week. On the day he was seen, he had a movement following cathartics and enema, but in spite of this the vomiting, which by this time had become more or less constant, did not abate. The vomiting was characteristically fecal. There was no fever, nor was there at any time evidence of jaundice. Examination of the right abdomen revealed nothing but a vaguely defined mass in the right hypochondrium. There was no increased peristalsis, nor was there any evidence of distention. The introduction of a stomach tube brought up very large quantities of fecal material, acid in reaction. A fairly thorough lavage gave the patient great comfort for twenty-four hours. Recurrence of the vomiting, however, on the following day, rendered exploration for an unrelieved abdominal obstruction advisable. The operation was performed by Dr. Lilianthal, an incision being made over the right side of a vaguely defined tumor in the right hypochondrium. A pus cavity was encountered, and in this area a number of various-sized gall-stones were removed, followed by drainage of the wound. The patient's condition at the time of operation had been desperate, and was not improved by the operation, death occurring on the following day. At the autopsy, one very large stone and several smaller stones were found high up in the duodenum, the largest stone being over an inch and a half in diameter, practically filling the duodenum of the lumen. Very dense adhesions bound down the gall-bladder and duodenum to the stomach. The gall-bladder was very much thickened, and at its lower portion was a large opening communicating with the duodenum. It was through this opening, undoubtedly, that the stone had escaped into the duodenum. Dr. Manges closed his presentation with a brief discussion of the rarity of gall-stone ileus and some of the features of its differential diagnosis.

Acute Edema of the Lungs Secondary to Ether Narcosis—Recovery.—The paper of the evening was read by Dr. V. C. Pedersen, who said, in part: The patient was thirty years old, healthy. Immediately after a thirty-minute administration of ether for an operation for piles, he developed acute edema of the lungs which very nearly proved fatal. The induction of anesthesia caused great excitement and muscular rigidity in the extremities, which persisted about ten minutes. During that time the ether was administered rather freely but not excessively, in so far that less than four ounces was poured into the cone during the entire operation. The clinical picture of the edema was made up of profound cyanosis followed by cardiac weakness, but was not accompanied or followed by any mucus in the mouth, nose or throat. The resuscitation was accomplished by free use of cardiac stimulants.

notably strychnine, whiskey, and nitro-glycerin, and respiratory stimulants, like atropin and elevation of the foot of the bed. General dry cupping of the chest was also instituted, and after about one hour of constant work over the patient, recovery took place, without, however, the appearance of any fluid in the throat from the lungs. No later lung complications occurred.

The speaker stated that some twelve cases of a similar nature have been reported in medical literature, all of them fatal, and many of them showing as in this case, an insidious onset at the end of the operation, notwithstanding the fact that anesthetization had been without incident. He thought this case worthy of publication for the reason that it illustrated the fact that certain persons are individually very susceptible to ether-fumes, the gas being irritating to the lungs. He therefore holds that whenever any difficulty appears in the early stages of anesthesia with ether, great caution and deliberation should be exercised in overcoming them. He stated that, in his opinion, aside from the very important factor of individual susceptibility, this case of edema may have been due to somewhat undue exhibition of ether early in the narcosis, although, after all, the total of ether exhibited (less than four ounces) proved that this excess had not been very material.

Dr. Pedersen also presented a chloroform dropper, which he had designed for the purpose of regulating the size of the drop allowed to flow from the tube which was inserted in the stopper. A large, small or medium drop could be allowed to fall on the mask, and at more or less frequent intervals, according to the desire of the anesthetist.

He also exhibited a new device for attachment to Bennett's ether apparatus, designed to greatly facilitate anesthetization in cases of operation on the larynx and trachea.

Dr. T. L. Bennett opened the discussion of Dr. Pedersen's paper. He said that pulmonary edema following the administration of ether is not a common occurrence. He had seen three or four cases in which this condition had been present in lesser degrees than in the case reported by Dr. Pedersen. The morbid anatomy of pulmonary edema is very likely that of congestion of the lungs, similar to that seen in the pleural cavity. Some patients are susceptible to pulmonary edema, as, for instance, those inclined to congestion of the lungs or those having tuberculosis. The anesthetist should be on his guard to notice any failure of the left side of the heart, either from weakness or from complication of the aortic valves or from aortic stenosis. The congestion from ether is usually sudden, but the edema may be quickly developed, or it may not become apparent until the administration is stopped. In the case reported by Dr. Pedersen, partial edema of the lungs probably occurred during the early administration of the

ether, and when the ether was stopped, a certain amount of stimulation was withdrawn, and the consequent depression favored the development of the edema. Whenever, during inhalation, the patient presents symptoms of cyanosis, he should be examined for edema, notwithstanding that his inhalation may be free. There is usually a rapid pulse, and the patient, if in an excessive case, will expel mucus from the cavities. In the treatment, prophylaxis is the most important feature. The ether should not be pushed so rapidly as to set up this congestion. The anesthetic should be changed as soon as the first symptoms are noticed, and it should be given in small quantities, so that the patient may cough or vomit, and so expel what is in the lungs. Strychnine should be given for stimulation. Artificial respiration, with oxygen preferably, does much to start the circulation and may expel the fluid from the chest and lungs.

Dr. Pedersen said that he thought the choice of an anesthetic should depend to a great extent on the personal equation. He had recently administered ether to two patients who had suffered from bronchitis previous to the time of operation. The anesthetic, in both instances, had been chosen by the operator. The first patient was given ether, and developed a bronchial pneumonia, but did not die. The other patient was a man for whom the operator requested chloroform. Ether was administered, but he became cyanotic and chloroform was substituted. He got through the remainder of the operation without difficulty, and made a good recovery.

The Penetrative Power of Argyrol.—A number of experiments have been made to determine the penetrative action of Argyrol upon the human tissues covered with mucous membrane, but the simplest one was suggested by Dr. Edward Martin, Professor of Clinical Surgery, University of Pennsylvania. This experiment consists in immersing a strand of ordinary catgut in a solution of the silver salt, and afterward making sections of the catgut. For this purpose the thickest piece of catgut obtainable may be immersed in a 5 per cent. solution of Argyrol for a few hours. Section of the gut reveals that it is impregnated through and through with the silver. This is the severest test that can be made, and demonstrates that solutions of Argyrol have an intensely penetrating action on albuminoid structures, even when they are hard, tough and tightly compressed. The practical deduction from this experiment is that this salt will exert the antiseptic effects of silver in the deep submucous structures where, in most pathological conditions, gonococci, or other pathogenic organisms find and maintain a lodgment in spite of energetic measures to eradicate them.

The Canadian Journal of Medicine and Surgery

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VOL. XV.

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NO. 2.

Editorials.

THE IDENTITY OF SMALLPOX AND VACCINE.

DRS. De Wach and Sugg have published an important paper on the identity of smallpox and vaccine, in *Arch. de Pharmacodynamie et Therapie*, 1903, t. xii., p. 205. This paper, which fills 65 pages, is abstracted by Dr. Chassevant, in *La Presse Medicale*, December 16th, 1903, and we reproduce his summary.

In a preliminary chapter, the authors give a complete history of the labors of different scientists, who have isolated micro-organ-

isms from smallpox patients. They afterwards describe the localization of the streptococcus in smallpox, and the identification of the smallpox streptococcus, which they compare with a series of other streptococci. To do this, they employ the method of identification by the properties of agglutination. They think that the infection of smallpox takes place in the tonsils and, as a premonitory symptom of the disease, they signalize sore throat, which, in their experience, always precedes the pharyngeal exanthem. They describe the histology of the smallpox lesions of the tonsils and the skin, and also post-variolic septicemia. They afterwards study the streptococcus of vaccinia, which they identify with that of smallpox. At the end of the paper they give their views about the clinical applications of the antistreptococcic serums of Marmorek, Denys and Aronson. Their conclusions are as follows: (1) In blood taken antiseptically from the heart at the autopsy of a smallpox patient, they found a pure streptococcus. The number of germs varies with the stage of the disease, with a predominance during the papular and papulo-vesicular stages. (2) They obtained the pure streptococcus in blood taken from a living smallpox patient and also from the eruption with a predominance during the fully-developed vesicular stage. (3) The pure streptococcus, taken from variolous blood and eruptions, is agglutinated by the blood of any smallpox patient. The blood serum of a smallpox patient does not agglutinate other streptococci, except such of them as are specific of other diseases, which the same patient has already had, viz., the streptococci of measles, scarlatina, and vaccinia. The serum of every vaccinated person agglutinates the streptococcus of smallpox, but ordinarily to a less extent than it would if the same person had had an attack of smallpox. The serum of unvaccinated persons, or of new-born children, does not agglutinate the streptococcus of smallpox. The agglutinating property of blood serum, with respect to the streptococcus of smallpox, is called into existence, and increases during the course of smallpox. Antistreptococcic serums made with other serums do not agglutinate the streptococcus of smallpox, though they agglutinate to a high degree the streptococcus, or the streptococci, employed in their fabrication. The agglutinating property is also present in the serous fluid of smallpox eruptions. (4) The streptococcus of smallpox may be found in the scabs of smallpox

patients, and also in the air of the houses in which they live. (5) This streptococcus, generally, enters the human organism by the air passages, and in 75 per cent. of the cases, smallpox begins by a sore throat, the catarrhal products of which are infectious. This sore throat corresponds to the first febrile movement. The specific streptococcus diffuses itself through the blood and stops at the skin (papule); proliferates (vesicle), producing the second febrile movement. The infection is then worsted by an invasion of leucocytes (pustules). While the epidermis is repairing its losses beneath the lesions, the pustules dry up and become scabs. (6) The streptococcus of smallpox may be found in post-variolic abscesses, and it may also produce a post-variolic septicemia. During these complications, the smallpox streptococcus undergoes modifications, which tend to alter its characteristic properties. These alterations are reproduced experimentally in animals. (7) A streptococcus which presents properties of agglutination identical with those possessed by the smallpox streptococcus, is extracted from vaccine. It is not agglutinated by the serum of newborn children or unvaccinated persons. It is agglutinated by the serum of a vaccinated person, or one who has had smallpox. The vaccinal streptococcus agglutinates under the same conditions as the streptococcus of smallpox. The reactions of agglutination establish the possibility of a serum diagnosis of smallpox, because the properties of agglutination are specific. Antistreptococcic serums, which are not specific for the smallpox streptococcus, such as the serum of Marmorek, the serum of Denys, or that of Aronson, have no therapeutic effect, if injected in smallpox.

J. J. C.

THE CHICAGO DISASTER AND SOME OF ITS LESSONS.

THE shock of the disaster at the Iroquois Theatre, Chicago, December 30th, 1903, was felt in all portions of the civilized world, so strong is the tie which binds human hearts in sympathy. Nearly six hundred people, mostly women and children, trampled, crushed, suffocated, or burned to death, in one building, is a disaster so great that ordinary experience cannot grasp it. Many of the deaths were caused by violence, sustained in vain efforts to escape through the doors, the weak being thrown down and tram-

pled on. Some of those who were thrown down afterwards perished by fire or asphyxia. Other deaths in the upper galleries were caused by an explosion, resulting from the mixture of a large quantity of illuminating gas with the oxygen of the air. If not killed outright, these victims were rendered helpless and unable to escape.

The Iroquois Theatre was said to have been a fireproof building. When tested this claim proved to be an air-castle. Its interior burned fiercely, while such necessities as ladders to assist people in descending from high fire-escape passages were absent.

To obviate a repetition of this horror, a municipal order, published in Chicago, January 2nd, 1904, announces that the owners or managers of every theatre in that city must thereafter comply with the following regulations, before being allowed to reopen:

"Steel-roll curtains, wide exits, no combustibles of any kind in the house furnishings, fire-proofed scenery, no calcium or "spot" lights to be used on the stage, skylights above the stage provided with automatic lids to permit the egress of smoke, fire and gas; separate stairways, each exit having its own stairs to the street."

All these regulations seem sensible, and, if enforced by municipal officers, would be likely to be observed, and would therefore prove efficient. As a fire in a theatre nearly always starts on or about the stage, the ventilation of the building should be so arranged and controlled that the fire could be confined to that part of the house. A steel-roll curtain would, if properly handled, assist; a skylight over the stage, with automatic lids, would be still more useful; a fireman ready to climb up a ladder and break an opening in the stage skylight, would be the most useful, because the fire being confined to the stage, time would be given to the audience to escape from the building. It is also probable that if the stage skylight of the Iroquois Theatre had been open, the gas which escaped from the burst tanks near the stage would have gone by this skylight, instead of rushing under the curtain, flying in the faces of the persons who were sitting in the upper galleries, and then exploding.

Apart from modifications in the construction of the stage, we think that separate exits from each flat of a theatre should be obligatory and that a fireman should patrol each flat during a performance to prevent people from occupying the aisles or pas-

sages. It should also be this official's duty, in case of necessity, to open the escapes on his flat and direct the efforts of the fleeing audience. In certain New York theatres this regulation is in force. It seems *apropos*, also, to say a few words about discipline. One is delighted to see the children of the Toronto Public Schools executing "fire drill," and one is surprised to notice how rapidly a school crowded with boys and girls can be vacated without accident. Doubtless school children perished at the Iroquois Theatre who had gone through the "fire drill" exercise in the Public Schools of Chicago, and could have repeated it; but the word of command, the note of discipline, the tie that binds together the units of a regiment and makes them act as one unit, was not there.

Against fire in a theatre, an open stage skylight is useful, fire-proof furniture and costumes are useful, well-policed exits are very useful; a disciplined audience is most useful of all, for, barring sudden death, disciplined people will find their way out of a burning theatre with few or no casualties. May we not learn a lesson by the misfortune of Chicago? Are the Toronto theatres and public halls so constructed, or so provided with fire preventives, that loss of life would not occur were a fire to break out and a stampede follow in one of them? What methods of egress are provided in many other tall buildings of the city, in which people congregate? Unless in hotels fire escapes are not in evidence in Toronto. The loss of life at the burning of Ottawa University, and the holocaust at the fire in the Nashville College for Colored Women, are yet fresh in our memories. It behooves the Mayor and Council of Toronto to demand adequate provision for free exits, from all buildings in this city in which a large number of people congregate.

J. J. C.

THE TORONTO PATHOLOGICAL SOCIETY.

On the evening of December 30th, 1903, the Toronto Pathological Society held an open meeting in the theatre of the New Medical building, Queen's Park. A large number of card specimens, some of which were of great interest, were exhibited. The president, Dr. Wm. Goldie, announced that, as Dr. Jno. Caven was unable, through illness, to be present, the paper on "Angina Pectoris," which appeared opposite his name on the programme,

would be read by Dr. John A. Amyot. Dr. Caven's paper was then read. Dr. W. G. MacCallum, Baltimore, followed with an address on "Organic Inefficiency as a Cause of Disease." The speaker dwelt particularly on the physiology and pathology of the thyroid gland and the adrenals. Brief mention was also made of the pituitary gland, the pineal gland, and the pancreas. Though he did not advance anything new, Dr. MacCallum gave his hearers a happily-worded abstract of much of the experimental work accomplished by himself and other physiologists in their efforts to elucidate the functions of the ductless glands and internal secretions. Speaking without notes, his ease of manner and the combined rapidity and sureness of his delivery made quite an impression on his auditors. A hearty vote of thanks was given. Dr. MacCallum is a graduate in Arts of the University of Toronto.

Refreshments were served in a large room near the theatre. The officers and members of the Toronto Pathological Society deserve the thanks of their guests for the high character of the entertainment provided at their last open meeting. J. J. C.

OUR ANNUAL DINNER.

THE annual dinner of the editorial staff of the *CANADIAN JOURNAL OF MEDICINE AND SURGERY* took place on the evening of January 7th, in one of the private dining-rooms of the King Edward Hotel. The hosts were Dr. J. J. Cassidy and Dr. W. A. Young. As has been the usual custom, a very few outside guests, selected each year from among the Toronto medical practitioners, responded to the invitation, and, by their cordial greeting and words of cheer, much enhanced the pleasure of the evening. After the toast to the King had been duly honored, the health of the *JOURNAL* was proposed by Dr. F. L. Grasett, who very felicitously spoke of its rapid progress, assured success, and wished it the continued prosperity it so deservedly merited.

EDITORIAL NOTES.

Epidemic Sore Throat and Suppurative Mammitis in Cows

—The *British Medical Journal* (December 5th, 1903) discusses in an editorial an epidemic of sore throat and fever, traced to the use of the putrescent milk of four cows in the dairy of a farmer living in the Chertsey rural district, England. Dr. R. W. C. Pierce, Medical Officer of Health for Guildford and Woking, who investigated the matter, reports, November 28th, 1903: "Mr. Wild (veterinary inspector) examined the milk yielded by each quarter of the udders of the twenty cows, with the following results: From the first cow, dirty pinkish milk from one teat, the three others normal; second cow, pinkish, thick, curdy matter from two teats, which settled on standing into an upper half of reddish-brown liquid, a half of a layer resembling pus, or so-called matter; third cow, two teats gave similar matter to cow No. 2, but not so colored; No. 4, three teats gave similar matter to No. 3 cow, and the fourth teat gave coagulated milk." Bacteriological examination of the four samples of milk obtained at this farm showed the presence of "streptococci and staphylococci, similar to, if not identical with, the organisms usually associated with severe cases of sore throats, and similar to, if not identical with, those already found in swabs from the throats of persons affected. The liquids yielded by cows Nos. 2 and 3 consisted, for the most part, of pus such as would be obtained in an abscess. It was the custom to send the afternoon's milk to Woking in the evening, and it was kept there over night for distribution next morning. This keeping of the milk would contribute enormously to the growth of the organisms concerned, so that every drop would be thoroughly impregnated with the infection before it reached the consumer." Dr. Pierce says further: "It is noteworthy that external examination of the diseased udders gave no indication of the conditions, such as would be yielded by tuberculous udders. *It was only by the actual milking of the cows* that the inflammatory condition of the udder was revealed. It is, therefore, obvious that nothing short of a similar periodical examination of milking cows, in addition to the general examination for tuberculosis, will safeguard the district against a similar occurrence in future." Some of the cases of sore throat

traceable to the infected milk terminated fatally. The patients had sore throats of different grades of severity, some being cases of follicular tonsillitis, and others cases of quinsy. In several instances, swelling of the cervical glands occurred, which in some cases suppurated, and in others remained enlarged. There was headache, fever, pain in the back and limbs. In several instances, also, there were joint pains after a few days, which was thought to be due to the extension of the infectious matter into the joints. Unlike an epidemic of diphtheria, there was a distinctly larger number of adults affected than young children. Several cases developed erysipelas of the face and neck. The majority of the swabs taken from the throats of the patients gave no evidence of diphtheria, but only of the organisms commonly found in severe cases of sore throats. This report from England throws a strong light on the origin of sore throats, other than diphtheria. As a practical conclusion, it seems that a few ladies in each municipality of Ontario should make it their business to look personally into the condition of the dairy cows from which the public milk supply is drawn. It is really a question of supply and demand; if house-keepers insist on having clean milk, it will be supplied. Suppurative mammitis in dairy cows would doubtless be found in Ontario if looked for.

Action of Alcohol on the Stomach and Digestion.—Referring to the part of the body where absorption may take place, the author of "Kirke's Handbook of Physiology" says: "Recent experiments have shown that though absorption does take place in the stomach, it is not as active as was formerly supposed, even in the case of water. . . . In all cases, absorption from the stomach is much increased by alcohol and condiments, such as pepper and mustard." Recent experiments by others throw doubt on the influence of alcohol in increasing absorption from the stomach. Thus Boaz shows that in normal subjects, large doses of alcohol are unfavorable to digestion, while small ones have no effect, or only slightly increase the secretions of the stomach. Dastre's conclusions are similar. Linossier, on the contrary, finds that alcohol even in small quantities always stops digestion more or less. Matthieu, in a paper read before the Therapeutical Society of Paris (November 25th, 1903), confirms these data, and shows that large doses of alcohol play a considerable part in the

pathogenesis of gastritis. He says that alcohol affects dyspeptics in many different ways. Some of them feel the better of a glass of wine or spirits after a meal, and find that it overcomes the sensation of heaviness, or bloating, which supervene after eating. Matthieu thinks the habit a bad one, because the relief it gives the dyspeptic is momentary, and sooner or later the alcohol taken in this way produces evil effects. He sometimes allows a very old, pure wine to dyspeptics, but thinks that very hot drinks give them the same amount of relief as alcoholic preparations. Other dyspeptics cannot bear wine, especially the red wines, which excite in them painful sensations and acidity of the stomach. These varied effects may be observed in different persons without regard to the activity of the chemical process of gastric digestion. Dyspeptics affected with hyperchlorhydria cannot take either wine or spirits.

Consumption of Spirits, Wine and Beer in Canada.—The following statement taken from the last annual report of the Inland Revenue Department, Ottawa, shows the quantities of spirits and malt liquor subject to excise duty, and taken for consumption during the years ended June 30th, 1902, and June 30th, 1903:

	Spirits. Gals.	Malt Liquor. Gals.
1902.....	3,123,430	27,623,767
1903..	3,208,767	25,755,154

There was a reduction of 1,868,613 gallons of malt liquor taken for consumption in 1903, as compared with 1902. There was an increase in the spirits taken for consumption in 1903, as compared with 1902, amounting to 85,337 gallons. The annual consumption per head of spirits, wine and beer in Canada during 1902 and 1903 was as follows:

	Spirits. Gals.	Wine. Gals.	Beer. Gals.
1902.....	.796	.090	5.102
1903.....	.870	.096	4.712

It appears, therefore, that in Canada there occurred, during 1903, an increase in the consumption of spirits, a decrease in the consumption of beer, and a slight increase in the consumption of wine.

The Germs of Typhoid Fever should be Destroyed at the Bedside.—According to Schuder's table of 650 cases of epidemic typhoid fever, in 70 per cent. the vehicle of the disease was water, in 17 per cent. milk, in 3 1-2 per cent. foods of all kinds, and in

9 1-2 per cent. other factors. It is quite certain, therefore, that in 87 per cent. of cases, the infecting organism reaches patients through the water or milk which they drink. It is equally certain that if typhoid organisms are rendered innocuous at the bedsides of typhoid patients, the water into which these disinfected stools are discharged will not reproduce typhoid fever by their agency. The process of rendering typhoid stools innocuous is simple and inexpensive. It may be done by dissolving a pound of fresh chloride of lime in four gallons of water, and adding a quart of the solution to each typhoid discharge, and allowing it to remain in the vessel at least an hour before disposing of it. Preferably, the stools after disinfection should be buried in garden soil, but when treated as mentioned above, they may be discharged into a privy. We would not advise the use of unboiled water drawn from a well, supposed to communicate with a privy, into which typhoid stools are discharged; but all the same, if a well water is not infected by typhoid bacilli, it will not communicate typhoid fever. The proper place, therefore, to repress the spread of typhoid fever is at the bedside of the typhoid fever patient. It is the duty of the municipal board of health to give full instruction as to this matter, to nurses attending typhoid cases, and any infractions of the instruction should be severely punished.

Post-Check Money.—We notice in the *Pennsylvania Medical Journal*, an article stating that a bill has been introduced in Congress which has for its object the changing of all paper currency hereafter issued, of the denomination of one, two and five dollar bills, except national bank notes, to a form to be known as post-check notes or currency. This new money is to pass current, just as in the case of the present issue; but will be provided with three blank spaces on its face: one in which the holder may write his name and the name of the payee; a second space wherein the payee, upon payment thereof, may write his own name as a receipt; a third space wherein a one-cent postage stamp may be affixed. When such a post-check is cashed it is retired from circulation, and this practice of retiring notes will serve an admirable purpose in keeping clean and relatively aseptic money in circulation. As good example is catching we may ere long see legislation providing for the adoption of the post-check system, introduced at Ottawa. For hygienic reasons, Canadian physicians would endorse

it, while the readiness and cheapness with which paper currency can be changed into a post-check should win the approval of persons who have occasion to send money by mail.

Ice Poultices in the Treatment of Acute Nephritis.—Dr. Stembo (*Therapie der Gegenwart*, 1903, No. 11) obtained a rapid cure of twenty cases of acute nephritis (principally resulting from scarlatina) by applying across the lumbar region, over the kidneys of the patient, a bag enlarged at the ends and filled with small pieces of ice. The patient lies as much as possible on his side. If he wants to lie on his back he is supported by cushions to prevent the pressure of the ice-bag on the back. The ice-bag is applied for two or three hours consecutively; then it is taken off for an hour, and afterwards reapplied. If the patient is very sensitive to cold, one or two layers of flannel or linen are laid between the skin and the ice-bag. Dr. Stembo says that under the influence of this local refrigerator, medicines being totally excluded, he had obtained in twenty-four hours the cessation of fever and a disappearance of the precursory sign of uremia (muscular jactitation). At the same time diuresis became freer and a manifest diminution of the quantity of blood in the urine was noticed. The use of the ice-bag should be continued until there are only slight traces of albuminuria.

J. J. C.

DR. J. BRYCE McMURRICH, Bothwell, spent some days in town about Christmas with his parents, Mr. and Mrs. McMurrich, of Madison Avenue.

DR. S. H. WESTMAN sailed from New York on the S.S. *Lucania* on Saturday, January 2nd, for England. He will take a special course in surgery in London.

MESSRS. HIRAM WALKER & SONS, Walkerville, have sent a cheque for \$10,000 to Mr. J. M. Courtney, treasurer for the Lady Minto Cottage Hospital Fund.

DR. T. J. MOHER, assistant superintendent of the Orillia Institution for the Feeble-Minded, has been appointed to succeed the late Dr. Murphy as medical superintendent of the Asylum for the Insane at Brockville.

DR. W. G. ANGLIN, of Kingston, is, we are glad to say, slowly recovering from his recent illness. The doctor contracted septiemia, from operating upon a case about three weeks ago, and has been very ill. We earnestly trust that his recovery, news of which comes to us just as this issue goes to press, will now be uninterrupted, though perhaps slow, and that the doctor will soon be able to associate with his confreres as of old.

Obituary

D. S. BOWLBY, M.D.

DR. D. S. BOWLBY, of Berlin, died on Sunday, December 27th, at Rome, Italy. He had not been well for some weeks, and left New York on December 16th for Sicily, in company with Mrs. Bowlby. The news of his death came by cable. Dr. Bowlby, who was in his 78th year, came to Berlin in 1853, and rapidly acquired a large and extensive practice. When Berlin was a small village, he identified himself with municipal life, and served in the Council from 1857 to 1862. For many years he was a member of the Berlin Public School Board, and afterwards of the High School Board, of which he was chairman for over twelve years. He was the first president of the Berlin Club, and at the time of his death was president of the Berlin branch of the Upper Canada Bible Society.

In politics he was a Liberal of the old school, and for many years was president of the Reform Association of North Waterloo. In 1882 he contested the riding against the late Hugo Kranz, but was defeated by a very small majority. He had been jail surgeon for over twenty years. In religion he was an Anglican, and was the oldest member of St. John the Evangelist Church of Berlin.

His is the first death in the Bowlby family, and he is survived by four brothers and one sister, viz.: William Bowlby, of Simcoe; Dr. Alfred Bowlby, of Waterford; Ward P. Bowlby, K.C., of Berlin; Ald. J. W. Bowlby, K.C., of Brantford, and Mrs. Walker Powell, of Ottawa. Besides the widow, who is the youngest daughter of the late Alex. A. Murphy, of Montreal, the deceased is survived by four children, viz.: Mrs. E. P. Clement, Dr. G. Herbert Bowlby, who is studying medicine in London, England; Mrs. J. P. Fennell and D. Shannon Bowlby, Wapella, N.W.T. Another daughter, Mrs. Gardiner Boyd, of Toronto, predeceased him. The body was brought to Berlin for burial.

J. B. MURPHY, M.D.

SHORTLY after noon on Sunday, January 17th, death came suddenly to Dr. J. B. Murphy, medical superintendent of the asylum, Brockville. He had attended church and, returning, decided to walk. He had nearly reached home when he grew weary, and rode the balance of the way. On entering the house he sank down on

the couch apparently in a faint. Dr. Clare, one of the medical assistants at the asylum, was telephoned, and rushed to his side, but life was extinct. He leaves a widow, four sons and two daughters.

John Bernard Murphy was born in Asphodel, Peterboro' County, March 31st, 1850, and was a son of the late Timothy Murphy, a native of Cork, Ireland, and his wife, Catharine McCarthy. He was educated at Norwood Grammar School and at St. Michael's College, Toronto, and pursued his medical course at Queen's, graduating in 1876. In 1881 he was appointed physician to the deaf and dumb institute and medical superintendent at the insane asylum, Mimico, in 1890. On the opening of the Brockville Asylum in 1894 he became medical superintendent, and had since resided there. In July, 1885, he married Anna, third daughter of the late L. G. Bolster, of Toronto, at one time literary confrere of the late J. D. McGee, and at his death manager of the Toronto Waterworks. Dr. Murphy was a member of St. Francois Xavier Roman Catholic Church. *R.I.P.*

THOMAS NORTON, M.D.

DR. THOMAS NORTON, one of the most widely-known physicians around Shelburne, died January 14th, after a lingering illness due to cancer of the stomach. He was born in Montreal fifty-two years ago, and graduated from McGill. He began the practice of his profession at Horning's Mills, but later moved to Shelburne. At one time he was President of the Turf Association, and of the 36th Battalion Band. He was coroner for the counties of Dufferin and Grey, and surgeon to the Canadian Pacific Railway. He was married twelve years ago to Miss Annie L. Roberts, only daughter of W. L. Roberts, of Port Perry, and is survived by his widow.

R. McINTYRE, M.D.

DEATH came suddenly, on January 4th, to Dr. R. McIntyre, Hespeler's oldest medical practitioner, in his 67th year. Drs. McIntyre, Charleton and Lockhart had been summoned to attend an infant son of L. E. Weaver, who was suffering from convulsions. Dr. McIntyre was the last to arrive and had hardly looked at the child, when he staggered forward to a sofa and instantly expired, death being due to heart failure.

Two hours later the polls announced that the dead physician had been re-elected a Public School Trustee, which office he had filled for seventeen years. Deceased was born in Lachute, Quebec, where he attended Public School. In 1857, he matriculated at

the Berlin Grammar School, after which he entered the medical department of Victoria University, from which he graduated after a brilliant career in 1862. He commenced to practise in Hespeler in 1863, and built up a large practice in the town and surrounding country. Deceased had been Medical Health Officer for thirty years, and had always taken a prominent part in the educational interests of the town. The doctor was connected with the old 20th Battalion for twenty years, was president of the Hespeler Liberal Association, and also was a prominent member and officer of the Hespeler Methodist Church.

FRANCES E. WHITE, M.D.

FRANCES E. WHITE, one of the most widely-known women physicians in the United States, died recently at Jamaica Plain, Mass. She was for many years professor of physiology and hygiene at the Woman's Medical College of Pennsylvania, and was graduated from that College in 1872. She resigned her chair last May on account of ill health. At that time she was elected an emeritus professor. Dr. White was one of the first women to lecture before the Franklin Institute, and was a delegate to the International Medical Congress held in Berlin, being the first woman to act in that capacity. Shortly after her graduation she was made demonstrator in anatomy and an instructor in physiology. She was one of the founders of the Alumni Society of the College.

FRED. H. S. AMES, M.D.

DR. FRED. H. S. AMES, brother of Mr. A. E. Ames, of Toronto, died Monday, January 4th, in Denver, Col. He graduated from the Toronto School of Medicine twenty-four years ago, and after practising in Sarnia first was obliged to leave for Colorado on account of his health. For the past ten years he has lived and practised in Denver. He was about forty-five years old and leaves a widow, formerly Miss Ida Taylor, of Parkhill, Ont., one son and two daughters.

BYRON HIRAM DAGGETT, M.D.

BYRON HIRAM DAGGETT died in Buffalo, N.Y., December 30th. A graduate of the medical department of the University of Buffalo in 1867, he was known in the surgical world as the inventor of a surgical table which is in general use among surgeons throughout the country. He was a former health physician and police surgeon of Buffalo, a member of all the Buffalo medical societies, and editor of the *Buffalo Medical and Surgical Journal*.

Correspondence.

The Editor cannot hold himself responsible for any views expressed in this Department.

INTERNATIONAL CONGRESS ON TUBERCULOSIS, 1903-4.

To the Editor of THE CANADIAN JOURNAL OF MEDICINE AND SURGERY :

DEAR SIR,—Allow me to submit a few facts concerning the International Congress on Tuberculosis, which is to be held on October 3rd, 4th, 5th, 1904, at St. Louis, under the auspices of the World's Fair.

I have delayed communicating with you since our last interview, until I could place before you the full text of the letter of the Government of the United States, and of H. J. Rogers, Director of Congresses, so that you could see the relation in which the congress stands to both the Government and the Universal Exposition.

The Committee of Organization of the International Congress on Tuberculosis, selected and appointed by President Francis, brings the congress directly under the auspices of the Universal Exposition.

Yours truly,

E. J. BARRICK.

The following is a sample copy of letters of appointment sent to members of the Committee of Organization :

E. J. BARRICK, M.D.,

President, American Congress on Tuberculosis.

Toronto, Canada.

DEAR SIR,—I hereby notify you that you have been appointed by President Francis a member of the Committee of Organization of the International Congress on Tuberculosis, to be held in St. Louis, October 3rd, 4th, and 5th, 1904, under the auspices of the Universal Exposition, 1904.

The Chairman of this Committee is Mr. Clark Bell, of New York City, and your meetings will be subject to his call.

Permit me to express the hope that you will be able to accept this appointment, as the committee has been selected with great care, and the acceptance of these commissions by the members will be an assurance of the successful organization of a Congress which we deem to be one of the most important in our series of international gatherings.

Yours respectfully,

(Signed) HOWARD J. ROGERS.

The following is a list of the Officers, etc., of the American International Congress on Tuberculosis:

Honorary Presidents.—Lay: Hon. John Hay, Hon. Gen. Russell A. Alger, Hon. ex-Judge A. H. Dailey, Hon. Judge C. G. Garrison, Hon. Stephens B. Elkins. Medical: Prof. Dr. M. Benedikt, Dr. A. N. Bell, Prof. Dr. Chas. H. Hughes, Gen. Presley M. Rixey, M.D., Gen. Nicholas Senn, M.D.

Council.—Moritz Ellinger, Esq., Chairman; J. Mount Bleyer, M.D., N.Y. City; A. P. Grinnell, M.D., Vermont; H. Edwin Lewis, M.D., Vermont; Richard J. Nunn, M.D., Ga.; W. F. Drewry, M.D., Va.; M. K. Kassabian, M.D., Pennsylvania; J. W. P. Smithwick, M.D., N.C.

Officers.—President, E. J. Barrick, M.D., Toronto, Ontario; First Vice-President, F. F. Daniel, M.D., Austin, Texas; Second Vice-President, ex-Chief Justice L. Bradford Prince, Sante Fe, N.M.; Third Vice-President, Dr. Charles K. Cole, Helena, Montana; Fourth Vice-President, Dr. Sofus F. Nelson, Pulman, Wash.; Fifth Vice-President, Dr. A. M. Linn, Des Moines, Iowa; Secretary, Samuel Bell Thomas, 116 Nassau St., New York; Treasurer, Clark Bell, 39 Broadway, New York.

The following Canadians have received and accepted appointments on the above Congress since the annual meeting:

Honorary Vice-Presidents.—T. G. Roddick, M.D., M.P., Sir William Hingston, M.D.

Presidents.—James Loudon; Hon. Senator Geo. A. Drummond.

Vice-Presidents-at-Large.—Dr. W. P. Caven, Dr. Daniel Clark, Dr. R. W. Powell, Dr. W. H. Moorehouse, Dr. John Ferguson, Rev. C. S. Eby, D.D.

Vice-Presidents of Provinces.—British Columbia: Dr. J. C. Fagan, Dr. S. T. Tunstall, Rev. Leslie Clary. North-West Territories: Dr. J. D. Lafferty, Dr. G. A. Kennedy, Rev. Dr. J. C. Herdman. Manitoba: Dr. H. H. Chown, J. A. M. Aikins, K.C., Mayor John Arbutnot. Ontario: Dr. A. A. Macdonald, Dr. J. A. Robertson, Mayor Adam Beck. Quebec: Mayor James Cochran. New Brunswick, Charles J. Coster, Dr. Peter R. Inches, Mayor Dr. W. W. White. P. E. Island, Dr. Roderick Macneill, Dr. S. R. Jenkins, Rev. T. F. Fullerton.

The foregoing, together with the following announcement sent out by the Executive Officers, will show under what favorable auspices the International Congress on Tuberculosis will be held at St. Louis on October 3rd, 4th and 5th, 1904:

New York, September 21st, 1903.

To the Officers, Delegates and Members of the American Congress on Tuberculosis.

It affords the Executive Officers of the American Congress on Tuberculosis great pleasure to announce the reception of the following letters from the Government of the United States, Department of State:

Department of State,

Washington, September 18th, 1903.

Clark Bell, Esq., Chairman Executive Committee, American Congress on Tuberculosis, 39 Broadway, New York City:

SIR,—I have to acknowledge the receipt of your letter of the 31st ult., and to inform you that the instructions to the Diplomatic Officers of the United States accredited to the Central and South American States, Mexico, Haiti and San Domingo have been sent in the language of the draft submitted to you on August 29th, but amended in the particular suggested in your letter under acknowledgment.

Instructions of the same tenor with regard to the British, French, Dutch and Danish Colonial Governments have gone to our Ambassadors at London and Paris, and our Ministers at the Hague and Copenhagen respectively.

In the hope that these instructions will result in a full representation by American States and Colonial Governments at the Congress on Tuberculosis at St. Louis next year, I am, Sir,

Your obedient servant,

ALVEY A. ADEE, *Acting Secretary.*

Department of State,

Washington, August 29th, 1903.

Clark Bell, Esq., Chairman of the Executive Committee of the American Congress on Tuberculosis, 39 Broadway, New York.

SIR,—Referring to the correspondence which the Department has recently had with you concerning the desire of the Committee on Organization of the proposed American Congress on Tuberculosis to be held at St. Louis in October, 1904, to have this Government give its support to the invitation which the Committee has addressed to each American Government to be represented at the Congress. I enclose herewith a draft of an instruction to each diplomatic representative of the United States in the Western Hemisphere. The Department will be pleased to consider any changes in, or additions to the draft you may suggest.

I am, Sir,

Your obedient servant,

F. B. LOOMIS, *Assistant Secretary.*

The Chairman of the Executive Committee felt that it was impossible to improve upon the admirably prepared proposed instructions, but suggested as an amendment the omission of a single clause in a portion of one sentence which the State Department concurred in, and the text of the instructions and the accompanying papers as sent is as follows, after the amendment suggested:

SIR,—The Department is informed by Mr. Howard J. Rogers, Director of International Congresses of the Universal Exposition, to be held in St. Louis in 1904, that the American Congress on Tuberculosis has been placed on its list of official Congresses and that the dates for said Congresses will be October 3rd, 4th, and 5th, 1904.

The Department is also advised by Mr. Clark Bell, Chairman of the Committee of Organization of the Congress that the Executive Committee and Officers of the Congress have sent to the Government of each American country an invitation for official representation by its Government in the Congress; and the request is made of the Department to give such support to the invitation as it properly may.

The humanitarian object which this Congress has in view, to reach, by the discussion of scientific men, some result in arresting the spread, and averting, so far as it may be possible, the ravages of this dreadful disease which now falls with such terrible force and fatality upon the people of the Western Hemisphere, cannot but enlist the sympathy and approval of the Government to which you are accredited.

The Department will, therefore, be pleased to have you say to that Government that this Government is in entire sympathy with its work, and would be pleased to learn that the Government of took a like interest in its success by the acceptance of the Committee's invitation, and the appointment of three or more scientific gentlemen to represent it at the Congress.

This Government would also be pleased if that of could find it convenient to comply with the request of the Committee to give the matter publicity, in order that it may come to the knowledge of interested organizations and public-spirited citizens of that country. I am, Sir,

Your obedient servant,

etc., etc.

This splendid expression of the sympathy of the Government of the United States insures a cordial reception of our work in the nations of the Western Hemisphere.

The Governor of Missouri has made the appointment of

thirty-six delegates, to represent that great State at whose chief city it will be the host of the delegates from all parts of the Western Hemisphere. The State Board of Health of that State has already named its delegates to that Congress.

The State Medical Society of Georgia has already selected and named its delegates to attend that Congress, and while this State has no Board of Health, steps have been taken to secure a suitable and representative delegation from a State that has been among the foremost in its support of the efforts of this body. The Governor of New Jersey has named delegates from that State.

The remaining Governors of the American States will also be invited, and the invitation has been delayed until the Government of the United States has taken this splendid and sympathetic action, which evinces and illustrates the paternal policy of our Government in aiding every effort for the protection of the health and the lives of our people when menaced from any form of disease that science has found to be communicable and preventable.

We assure you that every indication now points to a great meeting of the session of the American Congress on Tuberculosis at the World's Fair at St. Louis in October, 1904, and we invite the co-operation of every philanthropic mind, and the accession of men of the medical profession, as well as those of the law, judges, jurists and students of every branch of scientific inquiry who can in any way aid in securing preventive legislation in aid of our work.

E. J. BARRICK, M.D., *President.*

CLARK BELL, *Chairman Executive Committee
and Board of Officers.*

MORITZ ELDINGER, *Chairman of Council.*

SAMUEL BELL THOMAS, *Secretary.*

**NO ANTITOXIN TRUST—NO RAISE IN PRICE, BUT A
MATERIAL REDUCTION.**

THE following letter explains itself, and serves to effectually contradict the newspaper reports recently published:

January 15th, 1904.

To the Editor of THE CANADIAN JOURNAL OF MEDICINE AND SURGERY.

DEAR SIR,—Our attention has been called to a sensational article appearing in the Chicago papers, in which the manufacturers of Antitoxin are charged with having formed a trust, and advancing the prices of diphtheria antitoxin, this advance being

prejudicial to the best interests of the public health, and inimical to the best interests of the medical profession.

It is not true that the antitoxin manufacturers have combined in a trust; it is not true that the prices of antitoxin have been advanced, but, on the contrary, the prices of antitoxin have been reduced when quality of serum is considered.

So that you may have a clear understanding of the situation, we beg to advise the following:

For a long time the different manufacturers have endeavored to improve the quality of diphtheria antitoxin. It has formerly been the custom to manufacture two strengths, known as "Standard" and "Concentrated," or "X" and "XX." There were also supplied certain sizes, known as 500 and 1,500 units packages. There is now but one strength of antitoxin that will be placed on the market, and that will be practically the highest strength, formerly known as Concentrated Serum. This is the best quality of serum obtainable, and on this quality instead of the prices being advanced, they have been materially decreased. For instance: For the 1,000 units there is now a charge of \$2.00 against a former charge of \$2.25; for the 2,000 units there is now a charge of \$3.50 against a former charge of \$4.00; for the 3,000 units there is now a charge of \$5.00 against a former charge of \$5.75; for the 4,000 units there is now a charge of \$6.50 against a former charge of \$7.50.

The 500 and 1,500 units packages have been discontinued, the 500 units being insufficient to insure thorough immunization, and the 1,500 units on account of its small demand.

You will thus see that the interests of the medical profession have been safeguarded, inasmuch as but one strength—and that the best—will insure the highest quality of antitoxin being furnished. The revision of prices is also decidedly in favor of the physicians and his patients, because the physician is now able to get the best grade of antitoxin at a lesser price than formerly charged.

Instead of marketing antitoxin by number as heretofore, it is sold by the units package, 1,000 units representing an immunizing dose; 2,000 units, a small curative dose; 3,000 units a moderate curative dose; 4,000 units, a full curative dose. This style of nomenclature makes it easier for the physician than heretofore, and since the best quality of antitoxin is sold at a lesser price, it will prove an additional incentive to use full doses, which all authorities recommend in order to secure the best results from antitoxin.

Every manufacturer to-day is striving to meet the demand for the most convenient means of administering antitoxin, and while the improvement in packages by which every dose of antitoxin is

furnished in an aseptic serum-syringe, including sterile needles, has entailed considerable expense to the manufacturing, it is offered at less cost to the physician.

There was formerly some of a lower grade serum used, and we feel sure that discontinuance will be of material advantage.

It is possible that the Chicago Board of Health may be compelled to pay more for its antitoxin. If so it is only just, as it had been quoted at a price that does not yield sufficient remuneration to anything like cover the expense involved in producing. However, the Chicago Board of Health will now be able to get a better quality of serum than was formerly used, as the weaker strength which it formerly used has been entirely discarded.

We hope that you will place this matter in the true position before your readers, in order that they may understand that there is no truth whatsoever in the sensational reports relative to the so-called "trust or combination" of the manufacturers of antitoxin, and the statement that the prices have been raised, when, as a matter of fact, the former prices are considerably reduced.

Very truly yours.

Philadelphia, Pa.

H. K. MULFORD CO.

Myopia in School Children.—School-masters in Zurich are instructed to divide their pupils into three classes, namely, those who have normal vision, those who have abnormal vision, and the doubtful cases. This preliminary investigation of the sight of school-children serves to assist the school-physicians in their duties. During the year 1902 there were 2,994 school-children examined in Zurich as to their sight, and it was found that about 16 per cent. had defective vision, of whom 1 per cent. had hypermetropia, 1 per cent. myopia, and 8.5 per cent. astigmatism.

The Treatment of Nasal Catarrh.—Mannon (*Cincinnati Lancet-Clinic*) finds no danger whatever from the use of the nasal douche provided ordinary care is taken and a proper solution is employed. The charge that post-nasal douching is prone to excite inflammation of the middle ear he does not find sustained. All leading specialists employ this method of treatment in the posterior as well as the anterior nares with equally good results. The doctor has had chronic nasal catarrh of many months' duration yield to douching when heroically employed. Listerine, to which a small quantity of bicarbonate of soda has been added, is his main standby. If hemorrhage is a controlling feature he uses instead a saturated solution of tannic acid to each ounce of which ten grains of carbolic acid has been added. When the tendency to bleed ceases he returns to the listerine solution. Treated in this way the most pronounced cases yield in three or four weeks, and are not prolonged by complications or sequelæ.

❁ News of the Month. ❁

NEWS FROM QUEEN'S UNIVERSITY.

WHILE there was a large exodus of Queen's students for the Christmas holidays, still many remained in Kingston, for Queen's draws her students from all parts of the earth. Many go home for a few days, and then return so as to get a week's quiet and "solid" study, which they perhaps could not get at home. In the language of the street, there is at present "nothing doing" in the big stone building on the old Ontario strand.

Rev. Prof. Jordan, of the Faculty of Theology, has returned home from Clifton Springs, where he spent the past month for the benefit of his health. While slightly improved, his physicians will not allow him to resume work. He must rest for the remainder of the session, and be fully restored, for Queen's cannot afford to lose such a brilliant teacher and preacher. Dr. Jordan is a hard worker, and during his three years' connection with Queen's simply wore himself out.

It might be interesting to note in connection with the religious harmony which prevails at Queen's, that Roman Catholics voluntarily contribute to the Y.M.C.A. and Presbyterian missionary funds. It was always a pleasure to see upon the mission lists, which the theological students had, the names of Roman Catholics who had handed in contributions to that object without being canvassed or prompted.

Under Dean Connell, a new *regime* has certainly begun at the Medical College. The Dean is endeavoring to have the medical department placed on a firmer basis, and to have its relations to the other departments of the university more clearly defined. The Medical College is the poorest off financially of all the faculties, and it is simply wonderful how it has managed to maintain such a high standard of efficiency and keep up-to-date. By the persistency of Kingston's medical profession, and their contributions, has it done so. There is a probability that in future it will receive aid from the university funds. Up to the present it has received nothing from that quarter, even payment on the recent improvements to the building being personally guaranteed by the medical staff. Dean Connell is now aiming at securing an endowment for the college, and thus place it upon a safe basis.

The hockey teams did not get down to active practice until

December 18th, as the Kingston Rink was delayed in opening. A contemplated holiday series of matches in the east will put the players into shape.

The defeat of Queen's by Varsity in the recent intercollegiate debate is attributed to the fact that Queen's representatives dwelt too much upon abstract principles and general ideas, whereas their opponents brought forward concrete cases, which, in the opinion of the judges, carried more weight.

Queen's will be represented at Laval medical dinner by Mr. J. W. Pressault, and at that of the Western University, London, by Dr. McIntyre, of Glencoe, an old graduate.

At present there are thirty-two students enrolled in the Faculty of Theology, four more than there were at the same time last year. It is expected that the registration will reach forty, a good sign that in all colleges the theological ranks are not thinning out. Queen's maintains at least a standstill position in this respect, if not a steady growth.

Dr. J. C. Connell, M.A., the new Dean, has already done a great deal for the benefit of the students, and showed his alertness by summoning the Faculty together some weeks ago, when two typhoid cases broke out among the students, and demanding that the causes be minutely enquired into and daily bacteriological examination of the city water.

The closing week of the autumn term was marked by the Science and Medical banquets, held in the City Hall. Both were most elaborate functions, and the menu cards were very unique, the medical being in the form of a coffin. The delegates to the medical dinner were: J. F. Dunn, McGill; H. H. Byers, Bishop's, Montreal; Dr. J. Robertson, Toronto Varsity; W. J. Labrosse, Laval; A. H. Anderson, Western, London.

Dr. J. J. Robertson, Montreal, and Dr. W. Workman, Kingston, two recent Queen's graduates, have been appointed to fill vacant house surgeon positions in the Kingston General Hospital.

When the General Assembly Commission meets at Queen's on the second Wednesday of February, it will find that all the Presbyteries of three central Synods have signified their desire that Queen's should be retained by the Presbyterian Church, as heretofore, and that they all recommend it to the liberality of the public generally.—*News*.

TORONTO UNIVERSITY CHIT-CHAT.

Present Hospital Facilities.—*Appropos* of the movement of the medical faculty to secure better hospital facilities for the students, the following is a summary of the facilities now existing in Toronto: 1. Toronto General Hospital.—“This hospital has now

425 beds, and during the year the number of in-patients has varied from 250 to 300. During the year over 3,300 patients are treated in the wards, and 16,000 in the out-patient department. Most of the cases are of an acute character, and, therefore, well suited for clinical teaching. Clinical instruction is given in the lecture theatre and in the wards on medicine, surgery, gynecology, obstetrics and diseases of the eye, ear, nose and throat. Surgical operations are performed on Tuesday and Friday afternoons. The theatre is capable of seating 600 students. The additions recently made to the hospital afford excellent scope for out-door clinics. A physician and a surgeon are in attendance on this part of the work every day. In the emergency branch of the hospital there are unusual opportunities for the study of injuries, and classes are permitted to avail themselves of this material. In the Pathological Department, autopsies are performed at stated hours of the day. The opportunities afforded for this part of a student's studies are particularly good." 2. *Victoria Hospital for Sick Children.*—"This hospital, with 160 beds, is entirely devoted to the diseases of children. This hospital furnishes exceptionally good facilities for the study of children's diseases, and students are allowed every opportunity for a personal examination of all cases." 3. *St. Michael's Hospital.*—"This hospital has a bed accommodation of 160. It is conducted as a general hospital, and admits medical, surgical and obstetrical cases. Some members of the hospital staff are also members of the University Medical Faculty, and give clinics in the hospital. Post-mortem examinations are conducted systematically so that students may avail themselves of this material." 4. *The Toronto Western Hospital.*—"This hospital now has accommodation for 100 beds. At a recent meeting of the hospital corporation it was decided that students might be admitted under certain conditions to be agreed upon. This hospital is a general one, and offers many opportunities for the study of medical and surgical cases." In all of the above hospitals, graduates are appointed as resident physicians and surgeons. 5. *The Asylum for the Insane.*—"Mental diseases are taught clinically in this institution, which contains about 700 cases." It will be seen from the above that there is hospital accommodation in Toronto for 845 beds at the disposal of clinical teachers.

Equipment of Science Building.—The new Science building on College Street will be one of the best equipped buildings of its kind in America. It will contain the departments of mining, engineering, applied chemistry, mineralogy, and geology. The old building will be devoted exclusively to the departments of mechanical, electrical and civil engineering. At the rear of the new building a special mill-room is being erected in which some heavy machinery will be installed. It will have a small blast furnace

for the smelting of iron, a stamp mill, rolls for ore-crushing and a reverberatory furnace for roasting the ore. Special equipment in ore-dressing machinery will be supplied, in keeping with the needs of mining in Ontario nowadays, owing to the large variety of ores now being taken out. For this purpose there will be jigs and spitz lute, wilfey tables and a buddle. In the main building the present equipment in applied chemistry will be moved over *en toto*, and the apparatus will be largely increased. At the east-end, on the top flat a large room has been provided for the geological museum, to contain the combined collections of the School of Science and the University, under Professors Coleman and Walker. The offices of the executive staff will be in the new building, including those of the Principal and the Dean of the Science Faculty.

The Faculty Home.—A couple of years ago a movement was started at Varsity among the faculty to establish a University of Toronto Faculty Union. The idea then was to secure a building for a club-house outside of the University building, but it was afterwards worked out by utilizing the Dean's house in the old residence. Up till lately the furnishing of the union could hardly be considered complete, but additions have now been made by which the original plan has been fully realized. The smoking-room has been tastefully decorated and furnished at a cost of \$400, contributed by the members. Mr. John Ross Robertson has donated a handsome billiard table, costing \$500. Much is added to the appearance of this room by a number of paintings on the walls, loaned to the union by the artists, Messrs. Homer Watson and Edmund Morris. The other rooms have been similarly re-furnished, all in a style bordering on the luxurious. In each of the reception rooms and in the smoking-room a grate fire is kept burning, which gives them an exceedingly comfortable appearance.

A University Hospital.—A large scheme, under serious consideration at the present time, is to erect a University of Toronto Hospital for the accommodation of all classes of patients in medicine and surgery. The patients in this hospital would be treated at a low cost, and the treatment in all cases would be open to the observation of the medical students. The funds for the erection and maintenance of such a building would have to be obtained from private subscriptions or possibly from a few large donations. What is wanted, in short, is an institution similar to the Royal Victoria Hospital at McGill University, which was founded by Lord Mountstephen. Another proposal more likely to be carried into immediate effect is to erect a small building adjacent to the present buildings for open clinics. Here free consultations to poor patients will be given at certain fixed hours, at which the medical students can be present.

Grant for Varsity Dining Hall.—Among the items in the Government estimates for the University of Toronto this year is an annual grant of \$500 towards the maintenance of the University dining-hall. This goes a long way to remove the deficit which has accumulated, and places the financing of the dining-hall on a thoroughly practicable basis. The price of the meals has been fixed at a moderate figure, and the dining-hall is now largely attended by the students. The institution occupies the position of a partial substitute for a residence, and its success as such is now assured.

Alterations to S. P. S. Building.—Owing to the opening of the roadway from the Varsity lawn to College Street, just west of the School of Science building, the University authorities are having estimates prepared to build a new west face on the Science building, fronting on this roadway. Plans are also under contemplation for the tearing down of the northern portion of the building, which was the original building before the southern half was built. The idea is to erect a much larger addition in its place, as the expansion of the mechanical and electrical departments are rendering more room an absolute necessity.

ITEMS OF INTEREST.

The Medical Dean of Paris now is Dr. Felix Marie Momeriet, dean of physicians and hospital internes, who was born May 11th, 1811. He has been a doctor since 1840.

The Canadian Medical Association Meeting for 1904 opens at Vancouver, B. C., on August 23rd, and remains in session for four days. Mr. Mayo Robson, the well known London specialist, will be the guest of honor.

Scientific Societies Meet.—On December 29, 30 and 31, the Association of American Anatomists, the Society of American Bacteriologists, and the American Physiological Society met in Philadelphia. Dr. Frederick G. Novy, Ann Arbor, Michigan, was elected president of the society of bacteriologists, and Prof. Charles S. Minot of Harvard University, president of the society of anatomists.

Effects of Radium.—At a recent meeting of the Academy of Sciences in Paris Dr. Roux, of the Pasteur Institute, presented a paper detailing the results of exposing mice continuously to the action of radium. He hung a tube of radium in a cage containing mice, and after twenty days the animals lost their fur, which subsequently came out again, but was white. Exposure for a still longer period resulted in the production of a general muscular paralysis.

The Only Yearly Paper in the world is published at Cape Prince of Wales, in the Arctic Circle. It is called the "Eskimo Bulletin." The subscription price is 10 cents a year.—*Med. Times.*

A Scientific Gentleman recently passed through a peculiar experience. He tasted a small fraction of a grain of radium. It acted as a powerful stimulant, affecting both the heart and kidneys. It was several hours before his pulse became normal. It affected the mind also, producing hallucinations.

The Official Meteorological Record shows that rain fell more or less continuously in London on 205 days in 1903, or 39 days more than in 1902. The wet did not seem to affect the public health injuriously; on the contrary, it is stated that the death rate in the city and suburban districts was lower than ever before.

The Prevention of Tuberculosis.—The Montreal League for the Prevention of Tuberculosis is issuing an appeal for funds to enable it to carry on the war against tuberculosis in that city. The league needs this money now for the purpose of establishing free consulting rooms, and intends, as soon as possible, to erect a sanatorium at Trembling Mountain, at which place the provincial government of Quebec has made it a grant of land for the purpose. The league is under the patronage of the Governor-General, Lord Minto, Lord Strathcona, Sir Louis Jette, and Sir William Macdonald. Senator Drummond is the president.

Subcutaneous Injections of Atmospheric Air in Neuralgia.—In *Bulletins et Memoires de la Societe Medicale des Hospital de Paris*, December 18th, 1902, Marie and Crouzon report the results of their experiments upon the treatment of neuralgia by subcutaneous injections of atmospheric air, describing their apparatus in detail. The results of the injections were marvellous. A woman with severe sciatica got up and walked about immediately after the injections at the site of pain, though the pain had been intense before. In other cases, with lumbago, tabes, herpes zoster, neuralgia and neuritis, the results were equally striking. It is absolutely harmless and wonderfully efficacious. Chauffard reports similar results in a woman with intercostal neuralgia.

Facial Neuralgia.—A new and simple method of relief for this condition (says "Health") is brought forward by Dr. W. C. Belt. It is simply to direct the patient to place the hand opposite the side on which the neuralgia is felt in a basin of water as hot as can be borne. He claims that relief will be experienced in less than five minutes. His explanation of the action of this procedure is that the two nerves endowed with the greatest number of tactile nerve endings are the fifth and the median, and their motor areas in the cortex are not only adjacent, but actually overlap. As the fibres cross in the cord he expects a powerful tactile im-

pulse conveyed from, say the left hand, to affect in some degree the cortical centre of the fifth nerve of the opposite side. The method is so simple that it may be tried in a number of cases, and if without benefit, it will be without harm.

Brain Work does not Kill.—In the lecture on longevity delivered recently before the Royal College of Physicians, Sir Hermann Weber, himself an octogenarian, gave official support to the doctrine that brain work does not kill, but rather the reverse, says the *London Chronicle*. A few of his instances are Sophocles, Plato, Galen, Cicero, Moltke, Bismarck, Mommsen, and Gladstone, to whom we might add Hobbes, Carlyle, and with Kelvin still living. The facts are that brain work increases the supply of blood to the nerve cells, and promotes their nutrition and health. Mosso, an Italian, laid a man on a delicately balanced table, and showed that the head end sank whenever the subject did a mental sum or any other brain work. The increased weight of his head was due to the life-giving blood. The truth is that brain work, as such, never killed anybody.—*Am. Medicine*.

Important Gifts During 1903.—One hundred million dollars has been mentioned as a low estimate of the aggregate gifts made to religion, education, and charity during the year 1903. Some of the important gifts given to medical science and to charitable purposes are as follows: John D. Rockefeller, to Rush Medical Institute of Chicago, \$7,000,000; Andrew Carnegie, for the endowment of a fund for the relief of injured men of the steel works at Homestead, \$4,000,000; the Phipps Consumptive Hospital Fund of Philadelphia, \$1,250,000; the Jeanes gift for a Home for Aged Quakers, in Germantown, Philadelphia, \$1,000,000; the Maxwell additions to Long Island Hospital, \$600,000; Mrs. Appleby's gift of \$2,500,000 to be invested for the benefit of the poor of St. Paul, Minn. It is an interesting fact, says the *Public Ledger* of Philadelphia, that, while many of these gifts are to causes outside all churches, the funds for them are given in fully seventy-five per cent. of the total by persons inside of the churches. The *Church Economist* estimates the cost of maintenance of all churches in America to be \$60,000,000 a year. Not only do Christian people give almost all of this vast sum, but they also give fully \$75,000,000 of the \$100,000,000 going to causes outside of the churches each year.—*Am. Med.*

Conservative Candidate for Parry Sound a Medical Man.—Dr. J. Switzer Freeborn, of Magnetawan, the Liberal-Conservative candidate for the new constituency of Parry Sound, is regarded as a man of exceptional strength—a sure winner. He received the enthusiastic support of the whole party at his nomination on Nov. 25th, at Emsdale, and has greatly gained in strength since then.

Dr. Freeborn is a "man from Bruce," a Canadian of the third generation, of German descent. He was educated at the Collingwood and Galt Collegiate Institutes, and graduated from the Toronto School of Medicine. He served with the Field Hospital Corps during the Riel Rebellion in 1885, and wears the medal and clasp for the engagements of Batoche and Fish Creek. On returning from active service in 1886, he studied medicine in Great Britain. Dr. Freeborn has resided in the Parry Sound District for the past seven years, during four of which he has been reeve of Chapman Township. He has always taken an active part in public affairs, and for several years was president of the Clinton Conservative Association, and a member of the West Huron Executive. He is yet a young man, active, public-spirited, and popular. The Conservatives of Parry Sound feel confident that with him as their standard-bearer the new riding will start right in the political world by sending him to Ottawa to support the national policy of Mr. R. L. Borden.

Dr. P. H. Bryce's Promotion.—Just as we go to press with this issue of the JOURNAL, announcement is made of the appointment of Dr. P. H. Bryce, who for 21 years has been secretary of The Ontario Provincial Board of Health, with headquarters at Toronto, to the position of Medical Inspector to the Interior and Immigration Departments of Canada. We beg to congratulate our confrere upon this recognition of his abilities, and feel that, though his new appointment means his removal to Ottawa, the Dominion Government have made an exceedingly wise choice in placing Dr. Bryce at the head of so important a department. We understand that his work will have reference more particularly to immigration. Dr. Bryce has been for years one of the best known and most painstaking officers in the Ontario civil service. He was born in the county of Brant in 1853, and graduated at the University of Toronto in 1876 with honors. After taking his medical degree in 1880 he pursued his studies at the Royal College at Edinburgh. In 1878-9 he was Professor of Chemistry at the Agricultural College, Guelph, and after graduation began his medical practice in Guelph. Since 1882 he has been Secretary of the Provincial Board of Health, and since 1892 Deputy Registrar-General for the Province, having charge of the vital statistics. A man of literary taste, Dr. Bryce has written many papers on medical and scientific subjects. His greatest field of usefulness, however, has been as Secretary of the Provincial Board of Health, where his impartiality, firmness and decisive action have been the means of preventing the development into epidemics of many hotbeds of disease, which threatened the health of small communities. Dr. Bryce has for many years lived at Bracondale, just north of Toronto.

The Physician's Library.

BOOK REVIEWS.

The Principles and Practice of Surgery. Designed for Students and Practitioners. By GEORGE TULLY VAUGHAN, M.D. (Univ. of Va.), Assistant Surgeon-General, Public Health and Marine Hospital Service of the United States; Professor of the Principles and Practice of Surgery, Georgetown University, Washington, D.C. Pp. 569. Philadelphia and London: J. B. Lippincott Company. 1903.

The work is of value more as a student's text-book than as a guide to the practitioner who wishes to do operative surgery. Such treatises have their value, however, to the general practitioner; they suggest the proper line of surgical procedure in various diseases and injuries which require surgical interference, but, in most instances, the description of the surgical technique for major operations is necessarily too condensed to prove of much value as a definite guide for carrying out the treatment required. The author has succeeded admirably in producing a book which fulfils the conditions essential to ensure for it a very thorough appreciation by the class for whom it is intended. The portions of surgical practice which must oftentimes of necessity fall entirely into the hands of the general practitioner, such as fractures and dislocations, are dealt with in the full and thorough manner requisite to form an efficient guide for treatment, and methods are described with a cleverness and completeness which will enable the medical attendant to carry such cases to a successful issue unaided by a specialist in surgery. The various subjects discussed in the text are treated in a scientific spirit. The illustrations are well chosen and the work done by the publishers is entirely satisfactory.

A. P.

A Reference Hand-book of the Medical Sciences, embracing the entire range of scientific and practical medicine and allied science, by various writers. A new edition, completely revised and rewritten. Edited by ALBERT H. BECK, M.D., New York City. Vol. VII., illustrated by chromo-lithographs, and 688 half-tone and wood engravings. New York: Wm. Wood & Co. Canadian agents: Chandler & Massey Limited, Toronto, Montreal and Winnipeg. 1904.

Volume VII. of *Reference Hand-book* includes "everything" from the letters SAC to FLC, and when it is borne in mind

that the volume is composed of almost 1,000 large pages, two columns each, set in small but very distinct and easily read type, one readily concludes that Volume VII. of this wonderful work is almost a medical encyclopedia in itself. It has a most imposing array of contributors, all being prominent medical writers, and each one a litterateur. We find among the list such names as Dr. L. F. Barker, of Toronto, but now Professor of Anatomy in the University of Chicago; Dr. R. R. Bensley, of Toronto, and now assistant to Dr. L. F. Barker in Chicago; Dr. Frank Buller, Dr. J. M. Fry, Dr. Chas. F. Martin, Dr. Wm. S. Morrow, Dr. A. G. Nicholls, Dr. Frank J. Shepherd, all of Montreal; Dr. Wm. Oldright, of Toronto, and Dr. Beaumont Small, of Ottawa.

We read with a great deal of pleasure the eighteen or twenty pages by Dr. Royal Whitman, of New York City, on Diseases of the Spine. It is one of the most up-to-date chapters on the subject that has come under our notice, is written concisely, and added to materially in interest by being freely illustrated by both half-tone and wood cuts. Another chapter that impressed us is the one by Dr. J. Nevins Hyde, on Syphilis. It will be found to include all the most recent views on the subject, and is thoroughly scientific.

Progressive Medicine. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia; Physician to the Jefferson Medical College Hospital; one-time Clinical Professor of Diseases of Children in the University of Pennsylvania; Member of the Association of American Physicians, etc.; assisted by H. R. M. Landis, M.D., Assistant Physician to the Medical Dispensary of the Jefferson Medical College Hospital; Member of the Staff of the Henry Phipps Institute for the Study, Treatment and Prevention of Tuberculosis. Vol. IV., December, 1903: Diseases of digestive tract and allied organs, liver, pancreas, peritoneum, anesthetics, fractures, dislocations, amputations, surgery of the extremities and orthopedics, genito-urinary diseases, diseases of the kidneys, physiology, hygiene, practical therapeutic referendums. Philadelphia and New York: Lea Bros. & Co. 1903.

We find the contributors to Vol. IV., *Progressive Medicine*, 1903, are such men as Dr. W. T. Belfield, Dr. J. C. Bloodgood, Dr. John Rose Bradford, Dr. A. P. Brubaker, Dr. Chas. Harrington, Dr. John C. Hemmeter, and Dr. H. R. M. Landis.

One of the most interesting chapters in the volume is that by Dr. Jos. C. Bloodgood, on Surgical Shock, the best method of determining that condition, and the most effective and rapid

means of overcoming it. The treatment of hemorrhage is also gone into in detail, by the use of such hemostatics as thyroid extract, adrenalin, steam, and salt solution. The same author's chapters on fractures and their treatment is thoroughly up-to-date and well illustrated, especially the half-tones of spinal fractures. Vol. IV. of *Progressive Medicine* for 1903 is fully the equal of any of its predecessors for the year just closed, and in many respects their superior.

A Text-Book of Practical Gynecology, for Practitioners and Students. By D. TOD GILLIAM, M.D., Professor of Gynecology in Starling Medical College, Columbus, O.; Gynecologist to St. Anthony and St. Francis Hospitals, Columbus, O.; Fellow of the American Association of Obstetricians and Gynecologists; Member of the American Medical Association of the Ninth International Medical Congress, and of the Pan-American Medical Congress; Honorary Member of the North-Western Medical Association; Consulting Gynecologist to Park View Sanitarium, etc. Philadelphia: F. A. Davis Company, publishers, 1914-1916 Cherry Street. Royal octavo; pages xvi.-634. Illustrated with 350 engravings; a colored frontispiece, and 7 full-page half-tone plates. Extra cloth, \$4.00 net; half Russia, \$5.00 net, delivered.

Gynecology has made great advancement in recent years, and there has been a corresponding improvement in the text-books which deal with the subject. The author has produced a book that is modern in every way. It is well written, plain, practical, and contains no useless material. His remarks on the general causes of disease of woman are sensible and to the point. Errors in dress and lack of suitable exercise out of doors, both before and after puberty, are claimed by the author to be responsible for many of the ills which cause women to seek the aid of the gynecologist.

A. E.

Modern Methods in the Surgery of Paralysis, with special reference to Muscle Grafting, Tendon Transplantation and Arthrodesis. By A. H. TUBBY, M.S. (Lond.), F.R.C.S. (Eng.), Surgeon to and Lecturer on Clinical and Orthopedic Surgery, and in charge of the Orthopedic Department at Westminster Hospital; Senior Surgeon to the Evelina Hospital for Sick Children, etc.; and ROBERT JONES, F.R.C.S.E., Honorary Surgeon to the Royal Southern Hospital, Liverpool, etc. Illustrated by 3 figures and 58 cases. London: Macmillan & Co., Limited. New York: The Macmillan Company. 1903.

This book of 311 pages is one of the most interesting and suggestive that has been published in practical surgery for some

time. It largely deals with the correction of deformities caused by infantile paralysis. Other forms of paralysis as causative agents in the production of deformity are also considered. Perhaps the most interesting section of the book deals with tendon transplanting, and when we state that the authors record the fact that they have performed no less than 274 of these operations, we indicate the degree of importance which must be attached to their conclusions regarding the proper treatment of cases which require so much skill and good judgment in their management. A number of ingenious methods are described for the transplantation of the tendon; one tendon may be transplanted into another or periosteal implantation may be successfully carried out; again artificial tendons may be made out of silk or other material, and remarkable cases of successful operation by such methods are recorded in the book. Deformities due to cerebral palsy in childhood are also dealt with by similar methods, as also are paralysis and deformities arising from injuries and diseases of the nerves and some degenerations of the spinal cord. We highly commend the book as one of unusual interest and of great practical value.

A. P.

Lectures on Neurology and Neurialtry, Psychology and Psychiatry. After the methods of the Class-room, to the Author's Students, and designed also for General Practitioners of Medicine and Surgery. By C. H. HUGHES, M.D., Member American Medico-Psychological Association, Honorary Member of New York Medico-Legal Society, British Medico-Psychological Association, Foreign Member of Russian Society of Neurology and Psychiatry, Honorary Fellow of Chicago Academy of Medicine, Executive Member of Judicial Council and of the Executive Board A. M. A., ex-Superintendent and Physician-in-chief Missouri State Hospital for the Insane, ex-President Miss. Col. Med. Asso'n, American Med. Editors' Asso'n, ex-President of Section on Neurology American Med. Asso'n and Pan-American Med. Congress, ex-Vice-Pres. Sections Physiology and Psychiatry, Med. Congress, 1876, Pres. of Faculty and Professor of Neurology, Psychiatry and Electro-Therapy Barnes Medical College, etc., St. Louis. Edited by PROF. MARC HUGHES, M.D., Barnes Medical College. St. Louis: Press of Hughes & Co., 418 N. Third Street. 1903.

One of the most suggestive medical works we have read. Not that we read it through at one sitting; having read a goodly number of the lectures, we intend to read the others. Dr. Hughes' book is interesting, because the author knows how to clothe the dry bones of anatomy with meaty illustrations drawn from

medicine and surgery. In addition to stimulating our visual neurones with plates representing cerebrum, cerebellum, medulla oblongata and spinal cord, he aptly connects one or the other of these regions with syphilis, alcoholism, rheumatism or other dyscrasia, in which the foundations of distinctive neuro-pathological changes are laid.

We hope a second edition of Dr. Hughes' *Neurological Practice of Medicine* may soon be called for. J. J. C.

Contributors to "The Medical Brief," whose Portraits have appeared in 1903.

Such is the title of an exceedingly handsome pamphlet which recently came to hand from *The Medical Brief*, St. Louis, Mo. The editor and proprietor, Dr. J. J. Lawrence, whose portrait appears on the fly-leaf, thus announces the work on the title-page: "To our contributors and friends, who have kindly indulged us with their support in the past, do we dedicate this work, in the hope that it will be the means of encouraging future efforts. May the journal, with their aid, continue a beacon light to the medical profession and its friends, and may peace and prosperity be their lot." The work contains thirty-two portraits, printed in half-tone, on very heavy coated paper. The typographical part of the work is a credit to any firm, and, as a whole, makes a handsome New Year souvenir. Some of the portraits are Dr. W. Gill Wylie, of the N. Y. Polyclinic; Dr. A. H. Goelet, of the N. Y. School of Clinical Medicine; Dr. Finley R. Cook, of the N. Y. Academy of Medicine; Dr. Joseph Priestley, of London, England; Dr. R. T. Morris, of the N. Y. Post-Graduate; Dr. C. A. Wilson Prevost, of New York; Dr. Cyrus Edson, of New York; and our old friend and collaborator, Dr. Thos. H. Manley, of the N. Y. School of Clinical Medicine.

Colin of the Ninth Concession: a Tale of Scottish Pioneer Life in Eastern Ontario. By R. L. RICHARDSON. Toronto: George N. Morang & Co., Limited.

This is a tale which appeals to all. The story of our grandfathers, it depicts admirably their labors and troubles, and their few and simple pleasures. The story, told in the first person, is of the life of a little English boy, Colin, who has been kidnapped and brought to Canada. He is adopted by a typical Scotch settler's widow, Mrs. McNabb, and grows up in a rugged, healthy manner with the widow's children. Ultimately he comes into his inheritance—a place in the peerage of Great Britain.

There are many stirring scenes which appeal to any reader—the horrible crime and fate of Colin's abductor, the school fight, Dookey's dance, the political meeting, Willie McNabb's adven-

tures in New York, and the return of the Canadian boys from the Civil War. The character of Auld Peggy, the country gossip, is at once amusing and familiar. Then, what reader will not recognize an old acquaintance in Goarden, the hired man? Altogether, Colin of the Ninth Concession is a delightful book in an attractive form, which will interest all readers and appeal to the heart of every Canadian.

W. J. W.

The Worth of Words. By DR. RALCY HUSTED BELL. With an Introduction by Dr. William Colby Cooper. Third Edition, Revised and Enlarged. New York City: Hinds & Noble, Publishers, 31 West 15th Street.

The objects of this book are: "To awaken interest in correct English speech; to point out common errors; to suggest the employment of good words in the place of poor words; to protest against linguistic slovenliness, and to declare in favor of simplicity and logic in the use of words."

The first section deals with misused words. The misuse of each word is indicated, and its proper use is explained. In the following chapters "vulgarisms," "every-day errors," and "slang" are discussed, and a number of well-known slang words and phrases are given as examples.

The author tells in the last chapter how word-meanings change, and gives a list of words with the present and past meaning of each.

This is a practical, readable book, and it contains much valuable information for those who wish to cultivate the habit of speaking and writing good English.

A. E.

Squint Occurring in Children. By EDGAR A. BROWNE, F.R.C.S., Lecturer on Ophthalmology, University, Liverpool; and EDGAR STEVENSON, M.D., C.M., Demonstrator of Ophthalmology, University, Liverpool. London: Bailliere, Tindall & Cox. Toronto: J. A. Carveth & Co. Pp. 74, crown 8vo. Price 75c.

The purely mechanical (surgical) treatment of squint, though satisfactory to the patient and his friends, has never fully met the demands of the physician. A straight eye, even though amblyopic, satisfies the public, but the ophthalmologist worries over the amblyopia. He desires to have the amblyopia removed in order that the eye may retain its correct position, and not, as too frequently happens, eventually diverge. The necessary optical and orthoptic training, for which this essay is a plea, demands too much time and patience of most patients. Yet the day will come when the scientific, not the surgical, treatment of squint will be the only one accepted by both the profession and the public, hastened by just such sensible little books as this of Browne and Stevenson.

J. M.

The Practical Care of the Baby. By THERON WENDELL KILMER, M.D., Associate Professor of Diseases of Children in the New York School of Clinical Medicine; Assistant Physician to the Out-Patient Department of the Babies' Hospital, New York; Attending Physician to the Children's Department of the West Side German Dispensary, New York. 12mo. Pages xiv-158, with 68 illustrations. Extra Cloth, \$1.00, net, delivered. Philadelphia, F. A. Davis Company, 1914-16 Cherry Street, Publishers.

This is a very useful book for a young mother, as it gives every detail of how to manage the baby. It explains how to bathe and dress the newcomer and to govern his life until the sixth year. At the end of the book particulars are given of several diseases and diseased conditions, which frequently occur in childhood. There is also a collection of food recipes. Altogether we are much pleased with Dr. Kilmer's book. J. J. C.

A Manual of the Practice of Medicine, prepared especially for students. By A. A. STEVENS, A.M., M.D., Professor of Pathology in the Woman's Medical College of Pennsylvania; Lecturer on Physical Diagnosis in the University of Pennsylvania; Physician to the Episcopal Hospital, and to St. Agnes' Hospital; Fellow of the College of Physicians of Philadelphia, etc. Philadelphia, New York and London: W. B. Saunders & Co. Canadian agents: J. A. Carveth & Co., Toronto.

This is not a work from which to study medicine, nor is it intended to be such, but a "quiz," probably very acceptable to many students, especially when examinations appear on the horizon, and as a ready reference in a spare moment for a valuable suggestion to a hurried physician. A. R. G.

A Pocket Dictionary of Hygiene. By G. T. KINGZELT, F.I.C., Author of "Animal Chemistry," "Nature's Hygiene," etc.; and D. HOMERAY, B.Sc. Second edition. London: Bailliere, Tindall & Cox, 8 Henrietta Street, Covent Garden. 1904. Canadian agents: J. A. Carveth & Co., Toronto.

As the name would indicate, this is a small pocket dictionary, consisting of about 100 pages of "information respecting most of the subjects comprehended in the theory and practice of hygiene." It will be found to be useful to the health officer, who, of necessity, is interested in hygiene in all its branches, and will serve to refresh his memory on points on which he may have become more or less rusty. The book is three by four and a half inches, and sells in England at 2s. 6d.

The Blood Lilies. By W. A. FRASER, author of "Mooswa," "The Outcasts," etc. Illustrated by F. E. Schoonover. Toronto: William Briggs. 1903.

An interesting story from the Saskatchewan country. The author, who was a resident of this part of the "Territories" for a considerable length of time, portrays the Cree life with undoubted exactness. The tale hangs around the life of a young Indian who has come under the notice of the Lieutenant-Governor at Winnipeg, who sends him to the mission school at St. John's, where he contracts lung sickness from which he dies. "Little profit in civilizing an Indian if he died in the process," remarked Reverend Bruce, a prominent figure in the tale. The book has many interesting features.

A. J. H.

The Nutrition of the Infant. By RALPH VINCENT, M.D., Member of the Royal College of Physicians; Physician to the Infants' Hospital; late Senior Resident Medical Officer Queen Charlotte's Lying-in Hospital. London, Eng.: Bailliere, Tindall & Cox, 8 Henrietta Street, Covent Garden. Canadian agents: J. A. Carveth & Co., Toronto.

This is a work of merit, and follows the principles of Retch, to whom the work is dedicated, and is a strong advocate of the percentage plan of milk modification, as adopted in the Walker-Gordon Laboratories. The work limits itself to discussion of infant feeding and the disorders consequent upon mal-nutrition. It is well arranged and carefully prepared.

A. R. G.

How Hartman Won. By ERIC BOHN. Toronto: The Morang Company, Limited.

A description of life in a country village in Canada. The character of Dr Hartman, the young physician, the idol of the people, is pleasantly drawn, but the story, as a whole, lacks interest. The reader will certainly wonder why the author ever bothered himself writing it, and perchance, ere the book closes over, he may even yawn.

W. A. Y.

The Right to Life of the Unborn Child. A controversy between PROF. HECTOR TRENT, M.D., REV. R. VAN OPPENRAAY, D.D., S.J., and PROF. TH. M. VLAMING, M.D. With an appendix on a new method of operating, ejecting the fetus alive. New York: Joseph F. Wagner.

An interesting discussion of the Dutch law making induced abortion a misdemeanor under all circumstances, of the serious question of craniotomy *vs.* Cesarian section, and of the great moral question of jeopardizing one life for the possible preservation of

the second, or the sacrificing of the second for the possible preservation of the first. Of course the work is of no medico-legal value in this country, but is an instructive piece of reading on the subject.

A. R. G.

The After-Treatment of Operations. A Manual for Practitioners and House Surgeons. By P. LOCKHART MUMMERY, F.R.C.S. (Eng.), B.A., M.B., B.L. (Cantab.), Demonstrator of Operative Surgery, St. George's Hospital; late Senior House Surgeon, St. George's Hospital. London, Eng.: Bailliere, Tindall & Cox, 8 Henrietta Street, Covent Garden. Canadian agents: J. A. Carveth & Co., Toronto.

This is a most useful and practical work, giving detailed treatment after operation, and methods of dealing with difficulties likely to arise, such as hemorrhage, etc., and the best means of preventing them. It easily deserves a place in a medical library.

A. R. G.

The Pensionnaires. By ALBERT R. CARMAN. Toronto: William Briggs. Cloth \$1.25.

A brightly-told story of a young girl, an American, of course, who goes to Europe to study under celebrated vocal teachers. The descriptions of the places she visits are charming, and sure to make the reader live over again many a pleasant day spent during a tramp abroad. The book will prove to be a rest hour treat for the busy city physician, and a beguiling companion for the country doctor, as he twists the reins around his knee and lets his worthy steed jog him along to his twelve-mile-distant call.

The first number (January, 1904) of the *British Journal of Children's Diseases* has come to hand, and we perused it with very considerable interest. The editor is Dr. George Carpenter, a man who is well able to undertake the conduct of a publication dealing with pediatrics. Judging from the contents of the first issue, and its typographical excellence, we predict success for its promoters. After a brief introductory article, Dr. Jas. Taylor follows with "A Case of Hemierania, with Third Nerve Paralysis," after which George Pernet follows with "A Note on the Antiquity of Achondroplasia," to be succeeded by Dr. Edmund Cantley and Mr. C. T. Dent on "Congenital Hypertrophic Stenosis of Pylorus;" "Intussusception and Henoch's Purpura," by Dr. A. G. Sutherland; "A Case of Henoch's Purpura, in which a Laparotomy was Performed," by Dr. Harold Burrows; and "Administrative Notes on Children's Hospitals," by T. Glenton-Kerr. The publishers are Messrs. Adlar & Son, Bartholomew Close, London, E.C., and the subscription \$3 per annum.

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NO. 3.

Original Contributions.

HOW TO PREVENT OUTBREAKS OF INFECTIOUS DISEASES AMONGST SCHOOL CHILDREN AND THE BEST METHODS TO ADOPT TENDING TO LIMIT AND SUPPRESS THESE DISEASES.

BY CHARLES SHEARD, M.D.,
Medical Health Officer, Toronto.

BACTERIOLOGICAL investigations into the cause of diphtheria have contributed considerable to elucidate the methods by which infection may be brought about, and the nature of that infection *per se*. This disease, as most of you know, has been demonstrated by Professors Klebs and Loeffler to be due to a special micro-organism commonly called the Klebs-Loeffler bacillus. It is a low form of vegetable life capable of reproducing itself with great rapidity under favorable conditions, demanding, however, certain special forms of food for its sustenance and growing upon a soil or medium very similar in conditions to those favorable to low forms of vegetable life; and whilst the contagion in other infectious diseases has not been so exhaustively studied there are fairly good reasons for assuming that in the majority of instances they are governed by the same physiological laws.

As an introduction to the subject it would be important to consider some of the reasons which render children more susceptible to contagious diseases, such as scarlet fever and diphtheria, than adults. The conditions of child life and the habits of children largely account for this. It is certainly true that outbreaks of these contagious diseases are much more prevalent during school terms than during vacation, and seasonal influence, so

* Read at Conference on School Hygiene and Education, February 2nd, 1904.

much dwelt upon by statisticians of various countries, should not be considered apart from the school-room, which is operative during such seasons when these diseases are most prevalent. Children in schools are brought into more intimate contact than adults are in any walk of life, and they remain in contact for a much longer period of time, often being crowded into a room the ventilation of which probably is not of the best. They sit in close contact; they communicate in a much more intimate manner than the conventional adult would, and with child-like confidence and simplicity interchange not only their garments, caps, mufflers, coats, and sometimes wraps, but even their toys—girls sometimes their chewing gum. The mouth organ, the kazoo, the rubber judy squeaker, whistles, pea-shooters, string, stick candy, and the like, are often found among the contents of a child's pocket. The methods in which children use lead pencils, wetting one end to mark with, chewing the other in "maiden meditation fancy free;" cleaning their slates sometimes not in accordance with sanitary regulations; interchanging books, and a common drinking cup, will be sufficient to indicate to an ordinary reflective mind that if these diseases are dependent upon organisms which are lower forms of vegetable life, and amenable to influences similar to those affecting higher forms of vegetation, seed, soil, and season, these are certainly splendid opportunities for the seed to be disseminated, if seed exists.

In addition to the above there is another very important and altogether different side to the question, and one which is so frequently operative through the medium of the school. I refer to mild cases of these diseases which possibly have proceeded without having been seen by any medical attendant, which have never been suspected by parent or teacher, and which constitute in the school-room a fruitful and continuous source of infection, operative sometimes for many weeks, and which is, in my opinion, unquestionably the source of epidemics in schools in 99 per cent. of cases, and is frequently overlooked whilst the teacher and even the sanitarians proceed upon a tour of investigation in the drains, the ventilation, and the cellars. I could furnish almost numberless illustrations of this; every medical man who has had anything whatever to do with school infection is aware how often a mild case of scarlet fever, never diagnosed, never treated, never suspected, has returned to school in the stage of desquamation, spreading the disease broadcast. The same can be said of sore throats, sometimes very simple sore throats, so mild that no doctor was required, with, however, sufficient exudation, and secretion issuing therefrom, teeming with the specific micro-organism of diphtheria, furnishing seed enough to infect the school and lead to its closure; and, worse than all, the child with

a dirty nose, with nothing whatever the matter with it only a dirty nose, with chronic ozena or a sero-sanious ichorous discharge, which even the medical man is apt to overlook, is the most venomous of all, because, when the child sneezes, as it often does, or coughs or wipes its nose upon its cuff, it scatters this infection upon book, garment, playmate, everywhere.

If these are facts, the lines upon which they must be overtaken are clearly indicated. The mouth toy must be banished from the school; space and air and sunshine provided for the child in the school-room; the teacher must be instructed and educated up to the point of recognizing the indication of contagion in children; and the school children must be inspected by a competent medical inspector whenever contagious disease appears amongst the scholars.

To cover this work in a practical manner is not always simple. It requires a recognized system and money. Municipalities generally incline to the opinion that money for the ordinary sanitary work of inspection is waste, yet as a matter of fact there is no expenditure in connection with municipal economics which yields a larger and more direct return. Moreover, the Health Department and inspectors must work in harmony with the Educational Board and school teachers, for the latter, when rightly informed upon ordinary health matters, constitute the strongest ally a Health Department can have. Every case of contagious disease must be promptly reported to the Health Office, and the case as promptly followed up. The scholars exposed or domiciled in the infected house must be rigidly excluded from school during the incubation period of the disease, and until such time as they can be certified to as no longer liable to convey the disease, and this certificate must be furnished by the officer who alone is personally responsible for controlling the epidemic. How frequently we see medical practitioners imperfectly informed as to the details and conditions of an individual case, sometimes actuated by the desire to meet the convenience of influential or wealthy parents, furnishing certificates which are not always consistent with opinions usually entertained by physicians. In Toronto, I am happy to say that, with the co-operation of the School Board, we have in the past been able to maintain the position that no child of a family wherein there has been contagious disease can be permitted to return to school without a certificate authorized and signed by the Health Officer. The ordinary contagious disease inspector has furthermore instructions to report instantly to the principal of the school where the child has attended, and must ascertain for himself that no members of the infected family are in attendance at school, and if such children are found so to be to remove them, and it is

almost a daily experience that such supervision and constant watching is necessary. A full and complete record of the school bearings in every known case should also be kept. Such record must show the scholar's name, the room the pupil was in, when the child last attended school, where the other members of the family reside, and how the case is being handled, so that at a glance the supervising officer can judge accurately of the situation. The teacher also must be informed, and I am strongly of the opinion that at every teachers' convention, and on all occasions where school teachers assemble for the purposes of mutual improvement and the comparing of notes as to teachers' methods, time should be allotted for practical addresses upon ready means of detecting the various contagious diseases, and instructing teachers as to what they would be justified in regarding as suspicious and important to refer to the Health Officer of the district, or his medical assistants, with the object of determining the existence or non-existence of infection.

In the city of Toronto, I am free to say that school teachers are well abreast of the times in this particular work, but I hope that, with increased opportunity, they will become still more expert in this invaluable and practical field of usefulness. Not only is this important in connection with those diseases enumerated within the Public Health Act, but also in connection with some of the lesser forms of infectious diseases, such as ringworm, impetigo contagiosa, scabies, and the like. The School Board must also be educated up to the point of realizing the necessity of placing within the grasp of the child physical as well as mental force. Despite all that modern sanitarians have done and are doing, how little some of our responsible bodies realize the value of fresh air and sunshine in the development of the physical life of a child. Shorter school hours and longer vacations are commensurate with brighter faces and clearer intellects. That home-work and punishments, which add to mental worry and fatigue, make dull scholars duller, and bad ones worse; that the beauties of Nature, the fields and the flowers, have as much in them to admire as the monument raised to the vanity of a teacher, who has taught his pupil to tell the time of the clock by algebraic equation; to know that basements were never made for school-rooms; that the greater part of a child's life is spent in school; that his associations for all future time will date from that particular period, and its associated memories, his schooldays, should be as happy as it is possible for man to make them. Fresh air in abundance; freedom from odors; the best system of ventilation; light on every hand, with desks and lockers that will, as far as possible, secure and maintain independence

in each pupil and his belongings, are, in my opinion, the rights of the scholar.

I have had in the past the audacity to suggest that some children would be helped by being cleaned and clothed, and have been laughed at for my temerity, but if those whom I am now addressing have seen some scholars as I have seen them, who have been compelled to attend school and sit with others whose odors mark their nationality, as well as their family connections, and stigmatize their home surroundings, they would believe with me that there was more force than fiction in the suggestion. The Provincial Board of Health last year very properly provided for the personal inspection of every pupil and every absentee, where a case of scarlet fever or diphtheria appeared amongst the pupils of a public school. I will not say that in Toronto that has been done with mathematical exactness, because we have over 30,000 school children to supervise, but I am proud to say that the work has been done in the spirit, and with the assurance that it would prove satisfactory to all who care to study our methods. The medical inspector is required to make constant and repeated visits to the school-room for the purpose of detecting, by a skilled medical examination, the existence of latent disease or overlooked infection amongst the pupils; furthermore to examine the absentees with a view to definitely understand and report in form the cause of such absence, so that the reason for the non-attendance of such at school will be on file in the Health Office.

We must not forget that parents are compelled to send their children to school, and it is the bounden duty of the Health authorities and the municipality to see that every security is afforded them to avoid contact with infectious diseases.

RELATIVE PREVALENCE OF CONTAGIOUS DISEASES IN CHILDREN OF SCHOOL AGE.*

BY P. H. BRYCE, M.A., M.D., OTTAWA,

Late Secretary Provincial Board of Health of Ontario, Medical Inspector of Immigration and of the Department of Indian Affairs for the Dominion Government.

Mr. Chairman and Gentlemen,—To everyone, but especially to those interested in the care of the children of our public schools, the subject of this paper becomes of extreme importance.

We naturally are all interested in the question of the prevention of contagious diseases amongst children at all ages, and in the measures by which such prevention may be accomplished; and it is natural to inquire how far schools are an aid or hindrance to such prevention. In one sense our schools are both an aid to the dissemination, and a means of preventing the spread of contagious disease. They do aid in the dissemination of disease in the same way that infection spreads amongst crowds everywhere; but they are a means of prevention through the educational influences which spread often from the children to parents, in these days of general compulsory school attendance and instruction in hygiene. Not until the organization of the Department of Health under the Local Government Board in England was there any systematized study of the causative influences of the spread of infectious diseases; but since the appointment of Dr. John Simon, its first medical officer, investigations have been pushed in every direction. This is illustrated in the following quotation from Dr. Clifford Allbutt's "System of Medicine:

"The influence of school attendance on the diffusion of diphtheria was noted almost as soon as skilled inquiry into the circumstances of the disease was instituted. This was pointed out by Mr. W. H. Power in 1876, and in the following year, I had an opportunity of studying the matter during a maintained prevalence of diphtheria at Coggeshall in Essex. It was found practical to divide the 928 children in the village into age-groups, and then to ascertain within each group the relative amount of diphtheria, in those who attended school and those who did not. Under three years of age school attendance was not found to have materially influenced the number of attacks, but in the age period three to twelve years, the incidence of the disease was not far from 50 per cent. greater on school attendants than on others;

* Read at Conference on School Hygiene and Education, February 2nd, 1901.

and in the age period twelve to fifteen years the school attendants suffered nearly three times more than those who were not at school."

A similar result in the instance of scarlet fever is illustrated in the Annual Report of Dr. Murphy, Medical Officer of Health of London, England, for 1893, in connection with 17,704 cases. Of these there were: 5,279 cases under five years of age; 6,727 cases under ten years of age; 3,187 cases under fifteen years of age; or but 29 per cent. of the cases were under five years of age.

Dr. Murphy illustrated the fact in another way by showing how the prevalence of this disease declined with the summer vacation. Thus, under three years the decrease was 1 per cent.; under three to twelve years the decrease was 26 per cent.; over thirteen years the decrease was 13 per cent. Increase in succeeding month: under three years, 4 per cent.; under three to thirteen years, 65 per cent.; over thirteen years, 26 per cent.

Such is the experience of officers of health in England; but we are able to further illustrate the prevalence of infectious diseases from our own statistics.

During the first half of 1897, we had a serious prevalence of scarlet fever in Toronto. There were in all 1,138 cases and 63 deaths.

In the returns for May, and up to the 5th of the following June, there were in all 280 cases. Of these 198 attended school, or 70 per cent. of the whole were school children.

Such are the statistics of several outbreaks in which the details regarding cases have been available. We have, however, in addition to this, always available, the study of the death-returns from year to year for the whole Province, and for particular municipalities.

The following table, from the Registrar-General's Report of 1900, supplies a number of interesting details, by which comparative results may be obtained. It gives the population of the Province by age periods from nought to nineteen years inclusive, by years for the first five-year period, and for the three succeeding quinquennia. It further gives the deaths for each of the several periods separately for scarlatina and for diphtheria.

Age Period.....	0-1	1-4	4-9	5-9	10-14	14-19	5-19
Population.....	49,500	190,347	239,847	246,610	213,277	232,073	.....
Population Percentage.....	5	19.9	24.9	25.8	25.29	24.13	.....
Total Deaths.....	7,163	1,989	9,152	803	563	923	2,289
Total Deaths from Scarlatina.....	18	91	109	39	10	3	52
Total Deaths from Diphtheria.....	77	330	407	205	66	29	300

From the columns of totals we find that for the first quinquennium, the deaths for both diseases together were 516, and for the period of five to twenty, the legal school period, they were 352, and in the five to nine period separately, 244.

It will be observed that the ratio of deaths in the first five years of life is about three times that in the second five-year period for scarlatina, and twice that for the same period in the case of diphtheria. We see in this an apparent disagreement from the foregoing statistics regarding the cases as reported in the different illustrated statistics given.

There is, however, a natural explanation for this in the fact that the percentage mortality of scarlatina in England in 14,000 cases between 1888 and 1893 under five years was 16.8 per cent., while that for the five to nine year period was 5.6 per cent.

In the same way diphtheria which, between 1895 and 1899, had 25.6 per cent. of deaths in cases of children under five years, had 14.6 per cent. of deaths for the five to nine period. Or there were 1,536, as compared with 695. What is very pleasing to notice, however, in this study of English statistics, is the relatively great decrease in recent years, not only of the total cases and total mortality, but also of the lessening percentage in school children, due doubtless to the closer inspection of school children, and the very general removal of first cases to the isolation hospitals.

To conclude this reference to the relative prevalence in the two periods through illustrative statistics, I shall take the returns of our two largest cities, Toronto and Ottawa, for 1903. Except for the first three months of the year, the following are the number of cases, as well as deaths, for the year 1903. We find that for the ten months from March to December, Toronto had 418 cases of scarlet fever and 62 deaths, and 806 cases of diphtheria, with 100 deaths. The deaths for the whole year by ages are seen in the following table:

Ages ...	0-1	1	2	3	4	5-9	10-11	12-19	20-24	25-29	30-41	40-49	50-59	60-69	Not given.	Total.
Scarlet Fever	1	7	12	11	7	32	10	2	2	1	1					92
Diphtheria,	7	9	22	18	20	11	7	1	4	1			1	2		136
Diphtheria and Scarlet Fever				3	1	3	1									8

Comparing cases with deaths as given, we find that the percentage death rate was 14.7 for scarlatina, and that for diphtheria was 11.7. I have not the figures enabling us to determine the death-rate at different periods, but we may assume that the relative rates would be much the same as in other years and places.

We find for scarlet fever that in the nought to five period the deaths were 41, while those for the school period, five to nine-

teen, were exactly the same. Applying the rate in the London Report, this means that there were three times as many cases among children of school age as in those from nought to five years.

For diphtheria it would appear that the record for children of school age is more favorable. Assuming that the London rates prevailed of two to one for the two periods, we find the prevalence in the schools to have a ratio only 50 per cent. greater than that for the nought to five year period.

The following table illustrates the relative prevalence in the city of Ottawa:

Ages	0-1	1	2	3	4	5-9	10-14	15-19	20-24	Total.
Scarlet Fever...			1	1		2		1		5
Diphtheria.....	3	4	6	6	3	5	2		1	30

From the figures here given for scarlet fever, we similarly conclude that the prevalence of cases amongst the school children was three times as great in the five to nine period as in the nought to five year period; but we find that in the matter of diphtheria there is by no means the same relation, there being twenty-two deaths in the nought to five period, and but five in the five to nine period.

These figures are of extreme interest since they represent the results of a year's work, where for nine months all cases of diphtheria were removed to the isolation hospital so soon as diagnosed, and the school children of the rooms, where cases had been, were inspected till the period of incubation was over. The very considerable number of cases which occurred during the year (320 of scarlatina and 351 of diphtheria) removes the element of incorrect deductions which may result from a small number of cases.

The history of these Ottawa figures as a statistical study is most interesting. For years the city had an unenviable reputation in the matter of contagious diseases. In 1902, there were in all 689 cases of scarlet fever and 234 of diphtheria. In February, 1903, a new well-equipped isolation hospital was opened, and after March all cases of the diseases occurring in the city were sent to the hospital. Of the 320 of scarlet fever, 198 were treated in the new hospital during the eleven months; the balance, 102, were treated elsewhere, or after the complete removal to hospital of all cases began, there were for the nine latter months of the year but 159 cases compared with 161 in the first three months.

Of the diphtheria cases (251 cases), 69 occurred in the first three months of the year, and 182 in the latter nine months, during which all cases were treated in the hospital. While not directly bearing on this subject, it is pleasing to remark that the

total deaths for the nine months from scarlet fever were but three, while those from diphtheria were nine, or 1.52 per cent, and 4.9 per cent. of the cases. Such a low record of deaths for so large a number of cases has, so far as I know, never hitherto been obtained. But the other important point is the effect of the removal to hospitals of first cases in lessening the prevalence of the disease. In 1902 there were 689 cases of scarlet fever in Ottawa with thirty-nine deaths, and 487 cases of diphtheria. As a matter of fact, there has resulted from the more effective methods adopted in 1903, a reduction of over 50 per cent. in the cases of scarlatina and 85 per cent. of deaths, and 41 per cent. in the cases of diphtheria and 54 per cent. of deaths.

But little more, I think, need be said on the subject, as the methods for dealing with infectious diseases in schools will be dealt with in another paper. To me, and I think to every one, it must be apparent that practically there is no limit to the economic and life-saving results which public health work, moving along the lines of experimental science, is capable of. What it is apparent is necessary is:

1. A conviction arrived at by such statistics as have been cited that disease is disseminated in such ways as I have indicated.

2. That we be convinced by the results of such methods as have been especially illustrated by the Ottawa statistics, that an enormous saving of cases of disease and deaths is possible.

3. That we possess scientific methods so certain when persistently and systematically carried out, that they will suppress outbreaks of epidemic disease almost with the same certainty as the demonstrated amount of work which a properly constructed machine will perform with the combustion of a definite weighed quantity of fuel. All that is further required is to educate the public that such work is life-saving and patriotic, and that, like all other philanthropic work, the results are not only good to the receiver, but also to the giver. As Sir Launfal, in his search for the Holy Grail, came to realize:

"The Holy Supper is kept, indeed,
In whatso we share with another's need;
Not what we give, but what we share;
For the gift without the giver is bare;
Who gives himself with his alms feeds three:
Himself, his hungry neighbor and me."

THE NECESSITY OF PHYSICAL EDUCATION IN OUR SCHOOLS AND THE UTILITY OF MILITARY INSTRUCTORS.

BY CHAS. A. HODGETTS, M.D., L.R.C.P. (LOND.).

Secretary of the Provincial Board of Health of Ontario, Capt. A. M. S., Canada.

BEFORE considering how a system of drill can be provided for, and by its enforcement during school and college life the general health and physique of the people improved, and incidentally the male population trained in military knowledge, it may not be out of place to briefly review the present situation, and consider some of the baneful consequences of neglect of this important class of education.

To discuss at length the importance of this branch of education is entirely uncalled-for before this gathering of educationists and sanitarians; of its necessity as a part of the educational system most, if not all, are already convinced. We may differ in methods and the details for the carrying out of drill; but of this we are all convinced—the necessities of this twentieth century as regards both the boy and the girl require a sound body as well as a sound mind. For many years the youth have been treated to an intellectual feast where their brains became satiated with saccharine and starchy educational tit-bits, or the cream puffs of some educational faddist, or *ad nauseam*, have had to swallow that which was mentally indigestible. All this, too, in environments both at school and in the home, which would not suit even the most lenient sanitarian. Thus have the youth been trained in the past, the chief aim of education apparently having inclined to the Scriptural injunction. "With all your getting get understanding." The result of past methods has been largely an intellectual victory; but the victory has been gained at considerable cost. We have now, however, reached that stage when we are convinced that the race of life is not to the swift mentally, nor can the physically strong always win its battles. The conclusions drawn from the physiological investigations made in Europe and America into the distortion of the body caused by the demands and pernicious practices of school life are startling in the extreme.

Prof. E. R. Shaw, New York University, writing in 1901, says: "Despite all that has been written of the dependence of mental development, there has not yet been accorded to physical culture the place in our schools which its importance demands.

*Read at Conference on School Hygiene and Education, February 2nd, 1904.

How best to secure physical culture is undoubtedly the question of greatest importance in education at the present time?"

And Dr. Scudder, Boston, states: "The tendency in schools generally is to over-emphasize intellectual development and the acquirement of recorded knowledge by filling every available minute of the school programme with requirements designed to accomplish this end," and Sir Frederick Treves, writing upon physical education, says: "If one watches the stream of men, boys and girls which pours out daily at the close of day from a city factory, the question may well be asked, are they superior to the savage in all things, and are there no points in which the barbarian could claim some advantage over his modern descendant? In the face of a marvellous social, moral and intellectual development, we are apt to lose sight of the fact that man is an animal, that he cannot yet do without a body, and that a strong receptacle for the mind is better than a frail one." This fact has recently been emphasized, not only throughout the British Empire, but also in the United States. When large and sudden demands were made for men to engage in active warfare, it was found that many of the young men were not able to comply with the standards of the War Office Department. It was not a case of young men lacking in intellect, but being found unsuitable even to assume the duties of a soldier for home service.

The following extracts from the report of Sir Wm. Taylor, Director-General of the R. A. M. S., as also extracts from the report of the Inspector-General of Recruiting of Great Britain, indicate the physical condition of the young men of that country:

"Only two out of five men enlisting remain in the army as effective soldiers at the end of two years' service, or 60 per cent. of the men offering themselves for enlistment are physically unfit for service. The want of physique thus shown to exist with regard to a large section of the community, is not only serious from its military aspect, it is serious also from its civil standpoint, for if these men are unfit for military service, what are they good for? As Lauder Brunton says: 'Poor in physique as they all are, and poor in mental capacity and power of application, as many of them must be, what becomes of them? Many of them probably marry girls as weak as themselves and have children, some of them go to swell the lists of infant mortality, some join the criminal classes, while others grow up more weak and incompetent than their parents.'"

"The general deterioration of the physique of the working classes from which recruits must always be drawn, is causing much anxiety.

"From 1893 to 1902, 679,703 recruits were medically examined, and of this number 31.6 per cent. (234,912) were re-

jected as medically unfit for service, and 0.9 per cent. (5,849) broke down within three months after enlistment, while 2.1 per cent. (14,259) were discharged as invalids before completing two years of service; and as Sir F. Maurice says, as 60 per cent. are rejected of those who offer themselves to the recruiting officers, the number turned away must be appallingly large. And what can we say of their physical condition? Just think of it—only 25 per cent. of those willing to enter the regular service of the British army are found physically fit for service; the remaining 75 per cent. are rejected for being ‘under chest measurements,’ and ‘under height measurements,’ and ‘under weight,’ as well as for ‘decay of teeth.’ All are causes which clearly indicate the operation of agencies antagonistic to a healthy, physical development.”

So alarmed at the statistics presented have the leading men of the country become that the National League for Physical Education has been formed, under the presidency of Sir Lauder Brunton, and, amongst other proposals made by him, is the reduction of each hour of study to forty or forty-five minutes, the remaining fifteen or twenty minutes of each hour to be devoted to play and physical drill.

We have, perhaps, not reached the same serious condition of affairs in Ontario as apparently exists in England; but we are certainly confronted with the fact that gradually our rural population is becoming urban, with the inevitable result that physical degeneration must sooner or later ensue.

Turning again to the child we may briefly discuss the effects upon him of physical exercise. If a child of ordinary mental capacity were permitted to live in the association of educated people without systematic teaching of any kind, we would naturally expect when he reached manhood some intellectual development. The knowledge would have been gained by observation, experience and example. To be brief, he would be imperfectly developed mentally. What is true of the mental child is precisely true of the physical. We can leave neither the one nor the other to “nature,” for he is not born into, nor does he ever live in a natural condition. There are ever present the evils of environment. Therefore, “to leave a child to his own devices when not engaged in school work is not to provide him with a sound or efficient education of the body.”

What, then, are the effects of such an education upon the child? First, those upon the body:

1. Increase of size and muscle.
2. Strengthening of his tendons and aponeuroses.
3. Increases size and strength of bones.
4. Invigorates respiration.

5. Augments size of thorax.

6. Increases size of heart.

7. Accelerates circulation.

In short, exercise means "growth and functional vigor and the maintenance of a high standard of organic life," and the truth of these statements has been demonstrated by many. An interesting case is that given by Lord Brabazon, in a paper on "Open Spaces and Physical Education," read before the Sanitary Institution at York, 1886, which gives a report of the effects of six months' drill and gymnastic training given to twelve boys in the Much Wenlock National School from August 21st, 1871, to February 26th, 1872, when it was found that the average chest increase for drill was only eleven-twenty-fourths of an inch, while the combined training of drill and gymnastics gave an increase of 1 5-6 inches.

In addition to the organic improvements, it is found that "he who has been well trained physically possesses not only a complete, but an intelligent use of his muscles. His movements are powerful and under absolute control, are precise, and capable of the freest and most elaborate adjustment."

The Effect upon the Mind.—When the exercise is carefully systematized, and is both regular and moderate, it stimulates the circulation both of the body and of the brain, and cerebral movements are materially aided; besides this, the general health is improved and strength increased, and the capabilities for mental work enhanced.

Having briefly considered the effects of physical education upon the child, I would next refer to the chief elements of this form of education:

(a) The exercises should be carefully devised, systematically arranged, and suitably graduated.

(b) They should be carried out under guidance and with suitable and efficient apparatus.

(c) The time for the exercise should be carefully selected.

(d) The exercises should, if possible, be taken in the open air, or in a large and well-ventilated room, and the subjects properly clad.

From a consideration of these four elements, it is quite apparent that this branch of education cannot be carried out under the present staff of teachers. A new staff of teachers must be employed. These can most effectively be engaged from the various officers and non-commissioned officers of the permanent corps of the militia of Canada, all those who wish to qualify for commissions or certificates of instruction from the infantry schools, being required after training at these schools to put in a certain period of time instructing the boys of the Public and other schools

before receiving their commission or certificate. Further, this staff of teachers can be considerably augmented by the undergraduates of all our universities, who should be required to give some of their spare time to this branch of education, so that in turn they may be able to give some service to the State by instructing our boys and girls. By some such method the work could be carried on with small cost, and greater efficiency would result to militia officers of all ranks. The officers of the permanent corps might constitute the permanent staff of instructors, and they should have the supervision of detailing instructors, either to different sections or schools as the case might be.

The time for physical drill should certainly be taken from the present school hours; and I fully agree with the suggestion of Sir Lauder Brunton, that at least fifteen minutes off each hour should be given either to sport or drill, and both of these should be carried on as far as possible in the open air. In this country where buildings are necessary during the winter months, the rooms should be well lighted, roomy, well ventilated and warmed.

So far my remarks have been directed to physical drill during the school periods; but there is every year in the schoolboy's life a vacation during the months of July and August, when the opportunity is afforded for the gathering of the boys in camps on somewhat similar lines to those adopted by the "boys' brigade." While in attendance at these camps, the time of the boys should be divided up between military drill, physical exercises, rifle practice, boating, swimming, and sport generally, and all under the careful supervision of qualified instructors. I can imagine no better training ground for the youth of our country than the well-regulated camps of instruction, where physical instruction can be given to its fullest extent, and under the best sanitary conditions.

The cost of this branch of education would be comparatively small if a system such as suggested is followed out. The maintenance of camps of instruction would be less than the present cost of militia camps, and all expenses should, I think, be borne by the Dominion authorities, the provinces being paid a per capita grant according to efficiency. This suggestion may at first seem to be going too far, but under this system the Militia Department would be saved a great portion of the cost it now incurs in trying to train those of maturer years in similar work; and it can never reach the same standard of efficiency so long as it begins its training at the period of life when the youth is least adapted by nature to receive it. For the improvement of ourselves as a nation, physically and mentally, some such system of instruction as outlined must be adopted.

MARMOREK'S SERUM FOR THE PREVENTION AND CURE OF TUBERCULOSIS.

BY ANDREW EADIE, M.D., TORONTO.

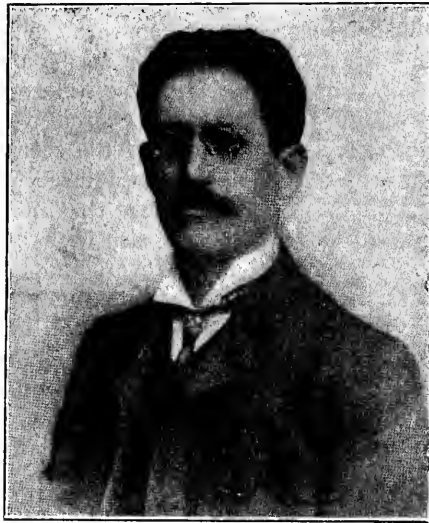
DR. ALEXANDER MARMOREK, of the Pasteur Institute, Paris, has for some years been experimenting with the bacillus of tuberculosis, and has been trying to produce an antituberculous serum, for the cure and for the prevention of this most dreaded disease—tuberculosis. In the *New York Independent* he gives a detailed description of his efforts in search of a serum, and tells of the success he has obtained. After much labor with the methods adopted by Robert Koch, he became convinced that the tuberculin produced by this distinguished pathologist is not the true toxin that is made by the bacilli of tuberculosis in an individual affected with this disease. He, therefore, concluded that there must be some other chemical substance secreted by the bacilli which causes the destructive pathological lesions in the lungs and other organs.

One of his reasons for believing that tuberculin is not the true toxin of tuberculosis is the unequal effects which the same dose of tuberculin produces in various persons. It was found that tuberculin, when injected into healthy persons, produced no reaction. It, therefore, is not a true toxin. When injected into those suffering from a mild form of tuberculosis, it often produces a very severe reaction, while in those suffering from the most serious forms of tuberculosis, and with extensive lesions, it does not always produce a great reaction. He then began to search for some other substance which might prove to be the true toxin.

It was soon found that perfectly healthy colonies of the tubercle bacilli do not secrete any toxin in the ordinary media employed in bacteriological research. He concluded that the reason why bacteriologists had failed to produce this toxin outside of animal bodies was, because the conditions under which it had been cultivated were not sufficiently like those which exist in the tissues where it is usually formed. The bacilli in the animal organism are usually found in the interior of white blood cells, and it is while they are in this situation that their specific toxic substance is formed. Dr. Marmorek's first idea, then, was to grow the bacilli in contact with freshly obtained white blood cells. All his efforts to do this, however, were unsuccessful. But he found that the serum of animals, into which he had previously injected white blood cells, was a more favorable medium, and

after much patient labor he succeeded in growing the bacilli in this medium. When the filtrate of cultures grown in this medium is injected into healthy horses an edema is always produced, but tuberculous animals are not more sensitive to it than healthy ones. This filtrate, therefore, does not contain tuberculin, but it contains a toxic substance.

The next task was to devise some means of keeping the bacilli in their primitive state long enough to permit them to produce an abundant secretion of this toxic substance. In order to do this, he decided to try to produce a hardy and vigorous type of bacteria. From observations made on the immunity of the liver from the invasions of the bacillus, Dr. Marmorek was led



DR. ALEXANDER MARMOREK.

to believe that there must be some chemical substance in the liver cells that is capable, for a time at least, of arresting the growth of the tubercle bacillus. He concluded, therefore, that if the bacilli could be forced to live in a medium of which the liver is a part, a hardy race might be produced that was adapted to overcome any unfavorable substances that might retard the development of weaker colonies. The necessities, he thought, for the bacillus to defend itself constantly would increase all its vital qualities, and would add to its power of producing toxins. After the bacilli became accustomed to grow in this unfavorable medium, they became more vigorous, grew rapidly and abundantly, and produced a greater amount of a more virulent toxin.

The next task was to prove that the substance thus produced was the true toxin of tuberculosis. The first method was to immunize animals by means of the toxin against a subsequent effort to infect them with the bacilli of tuberculosis. Dr. Marmorek succeeded in doing this. By using twenty-five to thirty c.c. of this toxin in several injections of four to five c.c. each time, he was able to make guinea pigs immune to subcutaneous injections of an emulsion of one or two drops of a medium opalescent with active tubercle bacilli. This he took to be a complete confirmation of the identity of his toxin with that which the bacillus secretes in the tissues of the body. Another method was by immunizing horses with repeated injections he was able to obtain an antitoxic serum from their blood. He says it was hard to accustom the animals to the injections, and at least seven or eight months were necessary in order to prepare an efficacious serum. He then tried the curative effects of his serum on animals that were suffering with tuberculosis, and was able to prove experimentally that the serum overcomes the tubercle bacilli.

His next step was to try the effects of the serum on mankind, and he claims that he has used it now in a large number of cases for nearly a year, and with excellent results. In patients suffering from advanced forms of tuberculosis, with abundant expectoration containing numerous bacilli, fever, and bad general condition with cavities, he had most encouraging results. The expectoration diminished, the number of bacilli decreased, the dyspnea promptly disappeared and auscultation and percussion showed a retrocession of the disease. It was found that it is not so much the extent of the lesion as the length of time it has existed that makes it refractory to treatment. A large recent lesion can be cured more easily and more quickly than a much smaller one that is older.

He has also obtained good results from the serum in cases of tuberculous disease of bones, joints and glands, and in tuberculosis of the bladder. He has not yet succeeded in curing any patients with tubercular meningitis, although many of them appeared to be greatly relieved by the treatment. The explanation given is that the tuberculous toxin is already united to the cerebral cells when the first marked symptoms of the disease appear, and it is then impossible to disunite it or to influence the meningitis itself. The patients were brought for treatment rather late, in no case before the seventh or eighth day, often not until the twelfth day or later. Earlier serum treatment, it is hoped, may yet prove effective in tubercular meningitis.

Dr. Marmorek concludes his report by stating that only a much larger experience than he has yet been able to secure, and made on a much more extensive plan, will suffice to give a definite

judgment as to the value of his serum. But observations are now being made with it in a number of places, and the results so far obtained by others have been quite as encouraging as his own. These results, together with those obtained in the Pasteur Laboratory with animals, and in the hospitals of Paris with patients suffering from tuberculosis, have been so encouraging that Dr. Marmorek feels justified in thinking that he has produced a valuable remedy for tuberculosis, the ultimate value of which can only be determined by a fair and impartial trial in the hands of the medical profession.

RUPTURED TUBAL PREGNANCY.*

BY LESTER KELLER, M.D., IRONTON, OHIO.

WHEN one has waded through the literature of extra-uterine pregnancy, and read the various theories as to its etiology, he comes to the conclusion that it is not all known. When he reads of a clinic of 60,000 gynecological cases, with only five cases of extra-uterine pregnancy, and of another who found about 1 per cent. suffered, he comes to the conclusion the observers have a different point of view.

I cannot subscribe to the theory that every extravasation of blood in the pelvis is due to an extra-uterine pregnancy, but I do believe it is more common than many suppose. Where and when impregnation takes place is rather a hard subject to handle, as this is one of the things that nature guards with a jealous eye, and we must deduce our theories largely from the accidental cases that come under our notice. The following will probably as nearly explain our cases theoretically as any deduced. First, the spermatozoa has motive force, and travels through the tube against the ciliary motion, which is always toward the uterus. Second, the ovum does not have motive power, and is carried by the ciliary currents. Third, impregnation takes place in the fimbria, or on the surface of the ovary when the spermatozoa loses its motive power. Fourth, any obstruction met in the descent of the impregnated ovum caused by malformation of the tube or inflammatory process may cause the condition. The lining of the tube may be denuded of its epithelium, as the result of acute inflammation due to gonorrhea or otherwise, or there may be a pouch or sacculation due to viscous attachments, resulting from inflammation, or the lumen of the tube may be impinged upon from outside influences. I cannot add much to the theory of its causation.

My experience in the year ending April 1st, 1903, has been so unusual I feel justified in giving it. I operated upon six cases in a hospital of twelve beds, in a town of 14,000, with no other hospital for reception of general patients. In addition, I operated upon one outside of the hospital, saw one in consultation in a neighboring town, on which the attending physician held a post-mortem a day or two after, verifying the diagnosis, and one case in my own practice in which the diagnosis was made, but the patient died before she could be removed to the hospital. No post-

* Read before the 9th District Medical Society at Jackson, O., December 3rd, 1903.

mortem was held, and consequently I could not verify the diagnosis.

CASE 1.—Mrs. T., 32 years, married, mother of one child, missed her period six weeks, when she had an irregular bleeding, continuing for two weeks, which contained shreds appearing to be mucous membrane. Seized with sudden cramps, tenderness over left ovary, clammy skin, rapid pulse, palor, and every sign of internal hemorrhage. Her physician diagnosed the case, but he was displaced by one who diagnosed “colic.” In ten days he was called on for a similar attack, and insisted on consultation. I confirmed his diagnosis, and had her removed to the hospital for immediate operation. We transfused a litre of saline solution while patient was going under chloroform. Section revealed an interesting state of affairs. Pelvis filled with blood clots, most of which were well clotted and adherent to surrounding parts. I removed a left ruptured tube with the remains of an early foetus, the right tube that was diseased and strongly adherent to the ovary, a dermoid cyst of right ovary about the size of a duck’s egg, with the adherent and much-inflamed appendix. The mass removed also contained an unruptured tubo-ovarian pregnancy of the right side, of about eight weeks’ duration. The patient made a good but tedious recovery, due to some infection.

CASE 2.—Was sent in from Kentucky, with a tumor of uncertain nature. The history of the case was vague. Section revealed a ruptured left tube, a blood clot of probably three weeks’ standing, adherent to all the pelvic viscera. Patient apparently made a nice recovery until the end of the second week, when she developed all the symptoms of obstruction of the bowels. With much work she was completely relieved. This attack was repeated in a week, when on failure to get response, proposed to reopen the abdomen, but was refused, as the patient put up the plea that we got relief before. She died, and post-mortem showed occlusion from extensive adhesions where blood clot had been removed.

CASE 3.—Was brought in by the same physician that had Case 1. Patient in collapse, with a doughy mass in pelvis, pushing the uterus forward. She gave a history of delayed menstruation, had been discharging blood almost continuously for three weeks, containing many shreds of membrane, with severe cramps and nausea. I gave chloroform and transfused. Section revealed a freshly ruptured tube still bleeding, a fresh blood clot and free blood. We did not secure a fetus, but the microscope revealed decidual cells. She recovered from the operation and left for home in three and a half weeks.

CASE 4.—I was called in consultation by Dr. A., and found a small woman, mother of two children, who supported herself,

pregnant four weeks. She had commenced discharging blood and shreddy tissues, and continued it irregularly for three weeks. While hanging a curtain she was seized with sudden pain and collapse. Being within two hundred yards of the hospital we had her removed at once, and transfused as she was pulseless at the wrist. Section revealed the right tube freshly ruptured, pelvis filled with blood. Again we could find no fetus, and the specimen was referred to the microscopist, who reported it undoubtedly a tubal pregnancy. Patient made a splendid recovery.

CASE 5.—I was called to Hlang Rock, two miles, to see a case with a history similar to Case 4, but patient had been in bed for two weeks. Examination revealed a pelvic mass, doughy, that pushed the uterus forward. While removing her preparatory to operation she had another collapse, and when abdomen was opened found the left tube ruptured, doubtless of two weeks' standing, with blood clot in the broad ligament. Fresh blood was coming from the right tube that had recently been ruptured, and a small fetus was found within. No fetus was found in the left side, and no microscopical examination was made, but I placed it as a double pregnancy.

CASE 6.—Was admitted to the hospital with some vague pelvic trouble, single, and denied any possibility of pregnancy. Examination revealed a mass in left tubal region, almost the size of the first, that was not freely movable. Patient had a suppressed menstruation for three months, but for the past four weeks had had an almost constant, but somewhat irregular flow containing shreds. Her earnestness in denying any possibility of it, and heretofore good reputation, made me decide that it was not a tubal pregnancy. I agreed to open her for, probably, a hydrosalpinx. When the nurse was giving her an enema preparatory to operation she collapsed, and so characteristic was her condition we hurried her on to the table and opened her for internal hemorrhage. We found the pelvis filled with blood, and blood still coming. We removed the tube, ovary and mass, and found in the tube a hematoma containing a dead fetus, partly decomposed, of almost three and a half months, with a fresh rupture in the tube, from which the fresh blood had come. Patient made a good and quick recovery.

The case operated upon outside the hospital was a desperate one. The diagnosis was questioned by what the family thought rather eminent authority, until the golden opportunity for success was past. In fact, when all preparations were made for the operation it was stopped, but afterwards consented to when patient was *in extremis*, and the aforesaid eminent authority was somewhat chagrined to see a ruptured tube, etc. Our patient died.

A few points and I am done. The patients all gave a history of suppressed and then continued and irregular menstruation containing shreds. The rupture was accompanied with much pain and collapse, with every sign of hemorrhage. None of the cases were seen before rupture had taken place. The pelvic mass had a peculiar doughy feel, and always pushed the uterus forward. I attribute much success to the transfusion of salt solution into the veins at the beginning of the operation. I always filled the cavity with salt solution before closing it up.

School Hygiene.

CONFERENCE ON SCHOOL HYGIENE AND EDUCATION.

A SMALL but very select conference was opened on February 2nd at the Normal School, to discuss conditions of hygiene and sanitation in the public schools of the Province.

Mr. William Scott, Principal of the Normal School, was elected to the chair, and Dr. C. A. Hodgetts was appointed secretary of the conference.

Hon. Richard Harcourt, Minister of Education, opened the proceedings with a brief address. He quoted the ancient Latin proverb, "a sound mind in a sound body." Though there had been great men whose lives had been a war with ill-health, yet as a general rule those who study the basic problems of education realized the importance of sound physical conditions. The saying of Agassiz, "The mind of a sage with the body of an athlete," had always impressed him. Economy in school building was all right, but it was much more important that education should be carried on amid sound physical conditions. In the past two months absolutely new schools had had to be closed because of unhealthy conditions. In one case especially no money had been spared to have a first-class modern school, yet the children had fallen ill and two had died. He informed the conference that in his department he would be guided by their conclusions. Large schools were being built every year, and school boards were now seeking for guidance. He would like to see model plans decided on. His own view was that schools should not be too large. He wanted three sets of plans: one for the country school-house, another for the town, and yet another for the large cities. Problems of heating and lighting, and all sanitary conditions should be taken into consideration.

Dr. Charles Sheard, the Medical Health Officer of Toronto, spoke on "The Problems of How to Prevent Outbreaks of Infectious Diseases among School Children, and Suppress them when Present." (This paper will be found among our "Original Articles" in this issue.) He dealt first with the diphtheria germ, a low form of vegetable growth capable of reproducing itself with great rapidity. It was a fact that diphtheria was more prevalent during the school term. The school system and the manners and customs of children when gathered together afford fruitful op-

portunities for the spread of infection. A mild case of what seemed a sore throat sometimes caused an epidemic of diphtheria in a school. To meet these conditions, the mouth toy must be abolished; there must be space, air, and sunshine for every child; the teacher must be educated sufficiently to detect the signs of contagion; and there must be competent medical inspection. All this required a definite system and money, but no expenditure yielded a better return. There should be prompt reports of contagious disease, and a careful record. No infected child should be allowed to return to school without a certificate from the Health Officer. He also suggested practical addresses to teachers on how to detect contagion. The School Boards required education also.

Dr. Sheard further advocated shorter school hours and longer vacations. Home work should be abolished, because it made dull scholars duller and bad ones worse. Life should be made as happy as possible.

Dr. P. H. Bryce read a paper, which dealt to some extent with the same subject, giving abundant statistics from England and Canada to show that contagious diseases like diphtheria and scarlet fever flourished most during the school term. (This paper will be found among our "Original Articles" in this issue.) In England since inspection and isolation had been adopted, there had been a great improvement. In Canada the effect of the removal of first cases to hospitals had had the most beneficial results in reducing the percentage of cases and deaths. It must be apparent to everybody that there was no limit to the life-saving results that public health work could produce. Its object was prevention rather than the suppression of disease.

Mr. Scott spoke of the folly of doctors who recklessly granted certificates to infected pupils, which the teacher was compelled to act upon.

Mr. Samuel McAllister wrote suggesting that the common drinking cup be abolished, and that the question whether ventilators should be placed near the ceiling or near the floor be discussed.

Inspector James L. Hughes strongly advocated the necessity of infected pupils bringing certificates from the Medical Health Officer before being admitted. He also gave some account of the methods adopted in Toronto.

Dr. Oldright, of The Ontario Provincial Board of Health was in favor of instructing teachers how to be on the alert for signs of disease. Medical men objected sometimes to have their professional status questioned by having their certificates challenged, but it would be dangerous to take the responsibility of saying that everyone was competent to give such a certificate. He thought all such certificates should pass through the hands of the

Medical Health Officer. He suggested a conference with the teachers at the educational convention this spring.

Dr. John Hunter strongly opposed giving teachers the right to refuse a doctor's certificate. Physicians as a rule were quite competent and conscientious enough to make tests.

Dr. Charles A. Hodgetts, secretary of The Ontario Provincial Board of Health, praised the methods adopted by Dr. Sheard in Toronto. He said that it was the Medical Health Officer who put the child in quarantine, and no one else should be empowered to release it. He was satisfied by his travels up and down the Province that many a life would have been saved had this course been adopted. He advocated house inspection by women, who could talk more intimately with the mothers of children.

Inspector Chapman, of Toronto, was strongly in favor of a meeting with the teachers at Easter.

Mr. C. H. Bishop said it was necessary to devise some solution of the drinking cup problem.

Mr. Scott said that, at the Model School, they boiled the cups once a week.

Mr. Chapman said that at Toronto Junction cups had been abolished, and a constantly running fountain was substituted.

Dr. Bryce spoke of the admirable effect of the Order-in-Council making six weeks the minimum quarantine in cases of scarlet fever.

Dr. Sheard said that the regulations were an assistance to the medical man in dealing with his patient. They enabled him to unload responsibility. He paid the highest tribute to the co-operative health work done by the teachers of Toronto. They had, he was sure, saved many a life in the poorer districts. He advocated glass drinking cups, which could be boiled every night.

In the afternoon Inspector Hughes read a paper on "Can School Hours be Shortened?" The best remedy for the evils resulting from long school hours and unnatural intellectual work, especially in cities, says Mr. Hughes, is not to set the children free on the streets, but to provide materials for constructive work with their hands, to afford facilities for their practical study of nature and her great growth processes, and to make it possible for them to enjoy vigorous free play under the direction and protection of their teachers. The time is not far distant when the work of the teacher in guiding the plays of children, under nine years of age, will be recognized as of quite as much value as her work in teaching reading or arithmetic or grammar. The primary school, based on the kindergarten, should provide the fullest opportunities for continuing, under the definite conditions that experience proves to be most productive, but without unduly interfering with the child's spontaneity, the best elements of the

child's play and work, before he goes to school. Such school work will not arrest intellectual growth, nor impair physical vitality, but will promote the harmonious development of both.

Papers were also read by Mr. C. H. Bishop and Mr. Wm. Scott, on the teacher's duty as an instructor of hygiene; and Drs. Hodgetts and Fotheringham on compulsory drill. (The latter appears in this number of the JOURNAL.)

Teaching of Epileptics.—A conference of representatives of the School Boards of Bristol, Cardiff, Newport, Birmingham, Worcester, Gloucester, Plymouth, Coventry, Swindon and other places was held at Bristol to consider the question of the establishment and maintenance of a boarding school for epileptics which would serve the Midlands, South Wales and the West of England. The subject was introduced by Miss Townsend, member of the Bristol Board, who pointed out the desirability of the boards combining to provide an institution for the education of epileptic children, who must have separate institutes with proper medical and other care. Such a thing could be done under the Act dealing with the education of mentally deficient children, but it would be a difficult and expensive work. After discussion, Alderman Lowe, of Bristol, moved a resolution recognizing the right of epileptic children to education, and insisting on the advantage to themselves and the community of their being educated in schools specially provided. The resolution was carried unanimously.

School Ailments.—The army of eight thousand teachers and four hundred and fifty thousand pupils who are to-day in the public schools of this city constitutes quite an important part of our *clientele*, and many of their ailments are the direct result of their educational work and surroundings, a thorough knowledge of which will often assist their medical attendant in diagnosing their diseases. There is a crying need for radical improvement in their environments, a simplification and abridgment of our school curriculum, and increased advantages for physical development. The medical profession should be more thoroughly alive to their duty in this matter, and should make their influence felt in every way possible, and every school board should contain a goodly percentage of physicians. School buildings should be constructed under the supervision of sanitarians and educators rather than politicians, and the overzealous pedagogues should be compelled by a properly-educated public opinion to give suitable time and attention to physical development, and to keep their ever-increasing course of study within reasonable limits. Our schools will then produce fewer intellectual prodigies, and also fewer physical and nervous wrecks.—G. D. Hamlin, M.D., in *The New York Medical Journal*.

Selected Articles.

TREATMENT OF CROUPOUS PNEUMONIA.*

BY ED. E. MAXEY, M. D., BOISE, IDAHO.

PNEUMONIA being one of the self-limited diseases, it is questionable just how much its course may be benefited or influenced by treatment. The clinical experience of various observers is not uniform. Then, too, the mortality rate is influenced by so many conditions as well as by the personal history of each individual case, to such an extent that it has been almost impossible to determine with any degree of accuracy whether or not any particular line of treatment has really lowered the frightfully high mortality of pneumonia.

It will hardly be expected of me, therefore, to point out the best or only treatment of this disease, but as our most practical knowledge of applied therapeutics should naturally come from the general practitioner, I shall endeavor to outline, as briefly as possible, the modern or present methods of treating pneumonia, as summarized from recent literature, with the expectation that those present will criticise, add to, or take from, as suggested by their personal experiences. The man who cures his cases of pneumonia should have something to say about his methods, that others may benefit thereby, and those who have troubles should tell us about them.

I have found it more convenient to study my subject under the following five subdivisions: Prophylactic, hygienic, local, symptomatic and specific.

Prophylactic Treatment.—N. S. Davis, jun., says: "Physicians have never known so much of the nature of pneumonia or used remedial agents more intelligently than now. It is not their fault that the mortality of the disease is increasing. But is the medical profession altogether free from blame for its prevalence? Prophylactic measures have not been enforced as they should have been. It is well-known that the cause of pneumonia is a micro-organism in the sputa of those suffering from the disease, and that the malady is engendered by inhaling it. Therefore, the same care should be taken to collect and destroy the sputa that is taken in pulmonary tuberculosis. It is not, however, a sufficient pre-

* Read before the South Idaho District Medical Society, Boise, Idaho, April 9th.

caution to exercise this care during a patient's brief sickness, because the diplococcus of pneumonia is known sometimes to live and multiply for months and even years, in the mouth, pharynx and nose of those who have had the disease. Therefore, during convalescence, and for at least two or three weeks thereafter, expectoration, if it occurs, should be into a sputum cup containing an antiseptic and water. Moreover, the patient's mouth should be rinsed several times daily with an antiseptic mouth wash. During the illness the greatest pains should be taken to prevent soiling bed clothing, carpets or furniture with the sputa. After the illness the patient's room should be carefully cleaned and ventilated. The enforcement of such measures will help to lessen the spread of this disease, and will greatly lessen the frequency of occurrence in those who have had it.

"The fact that house epidemics are not infrequent and that the disease prevails as other contagious and highly infectious ones do in the winter season, when people are most crowded together and live most of the time in badly-ventilated apartments, suggests another prophylactic measure, which the public should be taught to apply, namely, through ventilation of houses, offices, factories, theatres, churches, cars and other public places, in order that the air which must be breathed may be kept clean and free from infectious matter.

"Laymen should be taught not to be afraid of a patient who has pneumonia, influenza or tuberculosis, but to be afraid of lack of cleanliness about him during his illness, of failure to enforce prophylactic measures, and of close, badly ventilated apartments during the season when these diseases prevail."

S. S. Burt suggests, in view of the prevalence and fatality of pneumonia and the absence of a specific remedy, that the efforts of the medical profession and the public should be devoted to its prevention by sanitary measures such as temperate living, care as to food and drink, better ventilation of houses and especially places of public assembly, better street cleaning, the careful disinfection or destruction of pneumonic sputum, and the avoidance of spitting upon the sidewalks.

It is evident, therefore, that the question of prevention is an extremely important one, and precautions that would seem to be exaggerated will have to be considered to prevent the spread of this disease. Twenty-five years ago the suggestion that tuberculous sputum carried infection would have been laughed at. The laity must likewise be educated concerning the dangers from pneumonic sputum.

The question of dust and its dangers, especially in dry climates like our own, and in cities and places of public gathering will have to be studied seriously by city and local boards of health

and means provided for the suppression of this menace to health. All these prophylactic measures must emanate from and, in a great measure, be carried out by the medical profession. It is our duty to do this, and, often, without fee or other reward other than one's personal gratification in the knowledge of a duty done.

Hygienic Treatment.—Rest, fresh air and appropriate nourishment are, in my opinion, of the very first importance in the treatment of a case of pneumonia. Put your patient into a large, airy room with free ventilation, avoiding drafts of air, in a comfortable bed, with ample protection for the chest, and give him an abundance of liquid nourishment, and you will not only contribute much to his bodily and mental comfort, but you will reduce to the minimum, dangers of complications and, incidentally, enhance that patient's chances of recovery. A point on which particular stress is laid by Ingals is the avoidance of too frequent examination of the patient. Nothing is gained by daily examinations. The disease is going to go right on to the crisis just the same, and the disturbing of his rest and the worry and annoyance incident to the daily thumping and auscultation of his chest is to be deprecated.

In regard to food, milk is generally recommended, but beef juice, beef tea, mutton broth, clam broth, chicken broth or oyster soup all possess more or less nourishment, and any of them may be substituted for milk a part of the time, to prevent the patient from becoming tired of the milk. As a rule, where it can be borne, half a pint of milk, or its equivalent, should be given to an adult every three hours. If given oftener the stomach is kept in a constant ferment, with no time for rest, so that soon the appetite is lost or nausea and vomiting occur, or the food passes into the bowels undigested and there undergoes decomposition, causing tympanites and possibly diarrhea. When milk is not digested by the stomach, it should be tried in a partly digested form, and should the stomach reject all forms of nourishment, then high rectal enemas of four to six ounces of a partly digested and easily assimilated nutriment should be given, not oftener than three times a day. For, if given oftener, the rectum soon refuses to retain them (Ingals).

Local Treatment.—There is yet considerable difference of opinion regarding the local treatment of pneumonia. In the very early stages of the disease, leeches, cupping, and counter-irritants, in some cases, will relieve the pain and, in a few cases, may possibly abort the disease. They may likewise be of service in the last stages by hastening resolution. However, most, if not all of these methods are deprecated by a large class of physicians, and venesection is very rarely used at this time. Poultices, or any other local application requiring frequent changing, should be discarded

as not only useless but really harmful, on account of disturbing the patient's rest. Ingals says that, in lieu of poultices, many physicians have, within the last few years, employed soft, putty-like preparations, which are spread on the chest to a depth of one-eighth to one-fourth of an inch and covered with a cloth. They are said to have effects similar to poultices in relieving pain, and it is claimed that they also have some influence in checking the progress of the disease. He claims, however, that in the great majority of cases he has found the oiled silk and cotton jacket much more serviceable than the poultice or any of its substitutes. This jacket keeps the chest moist and warm, and, if properly made, it can be easily removed for sponging or for examination. This jacket should be made in two parts, lapping several inches at the shoulders and sides, where it is held together by safety-pins. It should have a layer of cheesecloth next to the skin, just outside of this a layer of oiled silk, then comes a layer of absorbent cotton about two inches thick, and this is covered with another layer of cheesecloth and the whole quilted together to prevent shifting of the parts. Ingals claims that in his hospital experience the death rate was some 5 per cent. less when such protection was used as compared with similar cases where no such protection was employed.

Symptomatic Treatment—Pain.—If counter-irritants are used early and fail to relieve the pain, heat should be tried by means of hot-water bag, and if this does not give relief, cold, by means of ice-bag or Leiter coil, may be tried. Phenacetin in five or ten-grain doses may be given at infrequent intervals, provided there is no indication of heart failure. In probably 50 per cent. of the cases, however, it will be found necessary to resort to the use of an opiate, however, codein or heroin. Oertel recommends the inhalation of chloroform for the pain and shortness of breath.

Cough.—Ingals advises the administration of ammonium bromide in ten-grain doses every two to four hours, combined with hyoseyamus in moderate doses. A combination of atropin and hyoseyamus is often found beneficial, but quite often it will be found necessary to give some form of opium to control the cough. I very frequently prescribe a combination of heroin or codein and ammoniated glycyrrhizin with gratifying results. I have also found whiskey to be a cough sedative.

Fever.—A temperature below 103 degrees F. needs no treatment. Higher temperatures should be treated by sponging every two to four hours. In hospital practice the tub bath and cold packs are not infrequently resorted to. Cold applications to the abdomen by the ice-bag or Leiter coil are also frequently beneficial in reducing fever. Only as a last resort, when the temperature persists in remaining high and the heart shows no indica-

tion of weakness, should Phenacetin (5 grains) or acetanilid (3 grains) be resorted to. The alkaline diuretics and diaphoretics may often be of service.

Insomnia and Restlessness.—If the remedies already mentioned for treatment of pain, fever and cough do not control the insomnia and nervousness, whiskey, choralamid, sulphonal, trional or some additional opiate may be tried, in order named.

Heart Stimulants.—In the pneumonia of drunkards, and where there is the slightest tendency to cardiac weakness, whiskey or brandy is indicated, at first in half ounce doses every three or four hours, the dose to be increased and continued as the urgency of the case indicates. Should the alcoholic stimulants fail, then strychnia must be used in addition in doses and frequency to meet the needs of the case. For sudden heart failure the hypodermic injection of ether is recommended, or digitalis may be combined with strychnia or given alone. In severe cases of pneumonia or where there is extreme weakness of heart and depression of respiratory forces. Anders recommends the exhibition of the tincture of digitalis in doses of five to fifteen minutes, every three hours hypodermically. The hypodermic use of the normal saline solution is also often found of marked benefit. However, except in extreme cases, I prefer to use the salt solution by means of high rectal enemas.

Specific Treatment.—There is yet great diversity of opinion on the question of specific remedies in the treatment of insomua. Andrew H. Smith says: "We may reasonably expect benefit in a considerable proportion of cases from the use of means addressed directly to the germ present in the lungs. The practical question to be solved is, what agent will act most powerfully on the specific organization with least inconvenience of danger to the patient." The salicylates, creosote, chloroform, digitalis, quinine and anti-pneumonic serum, each have their champions claiming specific action.

Salicylates.—Siegel reports seventy-two consecutive cases, many of them most unpromising, treated with sodium salicylates with no deaths. Ingals says that "this is a very remarkable record and certainly recommends the treatment most strongly for further trial," and adds that, "apart from the experience of Siegel, it does not appear unlikely that a drug which is capable of producing such decided results in acute rheumatism should be effective against an organism so sensitive as the pneumococcus." Siegel gave two drams daily with no unpleasant symptoms except buzzing in the ears. He claims that the disease was not more than half the usual duration, and that crisis did not occur in any case, the temperature gradually declining from the end of the first day until the third or fourth day, when convalescence was

established. Microscopical examination of the sputa showed a constantly diminishing number of diplococci until they were found to have entirely disappeared with the beginning of convalescence. Other observers report results almost as favorable.

Creosote.—Van Zandt claims that a large percentage of pneumonias are cut short or aborted; that almost all of the rest are mitigated, and the remainder, or a very small percentage, are not affected by creosote. He gives seven and one-half grains of the carbonate of creosote every three hours, in urgent cases, giving the dose more frequently for a few times, and thinks that this remedy, in pulmonary affections, is one of the greatest life-saving discoveries of the nineteenth century.

Kerr, Robinson, and others advocate the specific action of creosote in the treatment of pneumonia.

On the other hand, neither Anders nor Nothnagel even comments on the use of creosote in the treatment of pneumonia.

Chloroform.—Quoting from Ingals' paper: "Oertel, in 1882, reported decided benefits from the inhalation of chloroform, which he employed mainly in the advanced stages of the disease, about the fifth or sixth day, where there was extensive hepatization with pleuritis which rendered the breathing irregular, frequent, and superficial, and when the expectoration was scanty and viscid, and there were coarse rales over a large area of the lungs, with rapidly increasing cyanosis. The inhalations were repeated as often as five or six times and pushed to commencing narcosis, with most satisfactory results. The respirations became deeper, the pain was relieved, the rales were diminished, expectoration increased, cyanosis became less marked and general betterment ensued. Oertel sums up his experience in the following words: I consider the inhalation of chloroform, when the above indications are present, as a means of treatment in pneumonia that would be difficult to replace by any other."

Digitalis.—Petresco highly extols enormous doses of digitalis. He gives from three to fifty drams of an infusion of the leaves daily, and reports that out of several hundred cases among soldiers he has had a death-rate of only 1.2 to 2.6 per cent. with the crisis commonly occurring on the third day. Nothnagel states, however, in commenting on Petresco's cases, that it must be remembered that these cases were treated in a central military hospital; and further, that to attain such results it is by no means necessary to employ digitalis as a treatment, for in his own mortality statistics he had, in 379 cases of pneumonia in ages ranging from five to twenty, eleven deaths, or a 2.64 per cent. death-rate. These cases were all taken from the civil population, and many were moribund when sent to the hospital. Even more conspicuous are the figures given by Risell. He reports 127 pneumonias

in persons in the second and third decennium of life with only two deaths, or a mortality of 1.8 per cent.

Quinine.—Nothnagel says that quinine, when properly used—that is, in accordance with all the symptomatic indications, which in pneumonia are quite numerous—is the most suitable remedy, and that the value of quinine in the treatment of this disease is due less to its antipyretic action than to its specific action on the causes of the disease or their products. According to this author, pallor, marked decubitus, conspicuous weakness, slight apathy, with slight fever, are indications for the use of stimulants; and if in such cases mild delirium is added, the pulse becomes weak, small and frequent, and the disease is at its height, that is to say, on the fifth or sixth day, in some severe cases even earlier, then the hypodermic use of quinine hydrochlorate is strongly advised. He injects seven and one half grains in a half ounce of water once daily for two days. In two years' experience he was but twice required to resort to three injections, and both these cases recovered. For fifteen years prior to beginning the use of quinine he treated 1,461 cases, with an average mortality of 17.4 per cent. From 1895 to 1897 he treated 121 cases with quinine hypodermically with a mortality of only 7.4 per cent.

Serum Treatment.—Goldsborough reviews the cases of pneumonia treated by anti-pneumonic and anti-diphtheritic sera reported in the literature. Four hundred and forty-seven cases were treated with a percentage of deaths of 15.7, which, when compared with the average hospital death rates of 25 to 35 per cent., as determined by Osler, would appear to justify or even, as Goldsborough expresses it, to almost make it obligatory upon the hospital physician to employ it in conjunction with hygienic and symptomatic treatment. Sixty-one cases were treated with anti-diphtheritic serum with nine deaths, or slightly less than 15 per cent. The most noticeable effect of the serum is the marked cessation of cough and expectoration.

Nammack says that, in his practice at Bellevue Hospital, he has never been able to convince himself that the serum treatment had any value, and many other clinicians who have employed the serum are sceptical as to its therapeutic efficiency. However, there seems to be little doubt but that the Klemperer brothers have demonstrated that anti-streptococcus serum has a certain protective power in rendering animals, and, to a more limited degree, humans immune to pneumonia.

General Conclusions.—This is not, as you will perceive, a paper pregnant with original ideas. I have endeavored rather to present a view of some of the recent literature on this subject. In several instances I have thought it advisable to quote more or less extensively from various authors, believing their words to be better than mine.

My studies on the treatment of pneumonia lead me to make the following conclusions:

1. Pneumonia is a self-limited disease and is practically uninfluenced by treatment.

2. There is a wide range of deviation or variation in the mortality rate in different years, seasons and locations, and in different classes of people of the same age and environments.

3. The laity must be educated as to the dangers and methods of contracting pneumonia, and how to avoid it.

4. Rest, fresh air, appropriate nourishment, with ample protection for the chest, are of first importance in the treatment of a case of pneumonia.

5. No method of treatment has yet been recommended that can be accepted as a specific remedy.

6. Serum therapy would seem to hold out the most promise of giving us a specific treatment for pneumonia.—*North-West Medicine*, July, 1903.

QUEBEC COLLEGE OF PHYSICIANS AND SURGEONS

THE College of Physicians and Surgeons of the Province of Quebec has issued the following formalities, to be complied with in order to be admitted to the study and practice of medicine, surgery and obstetrics in that Province:

I.—ADMISSION TO STUDY.

1. The Bachelors in Arts, Sciences or in Letters of a Canadian or English University will be admitted on presentation of their diploma, the taking of the oath before one of the Secretaries of the College and the payment of the fee (\$20) at least eight days before the meeting of the Provincial Board of Medicine; or else, at their option, they may take the oath before a justice of the peace or a commissioner of the Superior Court in their own locality, according to a form of affidavit, that can be obtained by them from one of the Secretaries. They must then address the said affidavit, with their diploma, their certificate of good morals and their fee to one of the Secretaries, at least ten days before the date of the meeting of the Board.

2. Those who are not bachelors must pass, before the examiners of the Board, a satisfactory examination upon all matters forming a classical course of studies.

3. The Board may admit any candidate having passed an examination, equivalent to the examination required in this Province, before an authorized College or a licensing Board in any other Province or British possession, provided however, that the same privilege be granted there to students from this Province.

II.—ADMISSION TO PRACTICE.

Shall be admitted to the practice of medicine, surgery and obstetrics in this Province:

1. Those who having been regularly admitted to study shall have followed during four years regular medical lectures in one of the universities of this Province and passed satisfactory examination in presence of the assessors of the College or before the Board of examiners.

2. Those who having followed a regular and complete course of Medical studies in any University of England or France shall have obtained the diploma of Doctor in medicine from said University.

3. Those whose names are entered upon the medical register of England under the Imperial Act of 1886 (49-50 Vict., chap. 48) or under any act amending the same.

4. The physicians of the other provinces of Canada, the British Colonies and foreign countries may be admitted, provided they pass the preliminary examination, study medicine during one year in one of the Universities of this Province and pass a satisfactory medical examination before the Board.

III.—MIDWIVES.

Any woman wishing to practise obstetrics in this Province must furnish:

1. A certificate of regular presence at not less than fifty lessons given by a French or English-speaking physician connected with a lying-in hospital.

2. A certificate of regular service, during at least six months, in a lying-in hospital.

3. A certificate showing that she has attended at not less than twelve births.

4. A certificate showing that she enjoys a good reputation and is able to read and write.

GENERAL INFORMATION.

The Provincial Board of Medicine meets twice a year; the first Wednesday of July, in Montreal, and the last Wednesday of September, in Quebec.

The committee on credentials and the committee interested with the professional examination meet the day before or on the day fixed by public notice, at nine o'clock in the forenoon.

All the candidates for the license must present themselves before the committee on credentials, on the appointed day, with their certificate of matriculation, their diploma from the University and their certificate of good morals.

Those who have no diploma must pass before the committee

of professional examinations a satisfactory examination on the matters inscribed on the programme of medical studies of the College of Physicians.

Licenses are granted only at the regular meetings of the Board. In all cases the candidates for the license to practise must establish that they have completed their twenty-first year.

The Bachelors who wish to be admitted to the study of medicine must swear to their diplomas before one of the secretaries of the Board, or else before a Justice of the Peace or a Commissioner of the Superior Court complying with the rules herein laid down.

Those who are not Bachelors must pass before the Board's examiners, a satisfactory examination on the matters which form a course of classical studies, and furnish a certificate of good morals.

The programme of this examination is revised from time to time by the examiners, and it can be obtained on application to one of the secretaries.

The examination takes place alternately in Montreal and Quebec, on the Thursday and Friday preceding one or the other of the Board's meetings. The first day is devoted to sciences and the second to letters. The sitting begins each day at nine o'clock in the morning. Each group can be passed separately.

The candidates must sign a solemn declaration certifying their identity and that they have faithfully observed the rules of the Board during examination.

FEES.

The fees required by the College are the following:

For the admission to the study of medicine, on presentation of a diploma of Bachelor, or after preliminary examination, \$20.

For the admission to the practice of medicine on presentation of a university diploma or after passing a professional examination before the Board's examiners, \$40.

The candidates coming from abroad and not having passed a preliminary examination must pay \$60.

For a license of midwife, \$10.

In all cases these fees must be paid into the hands of one of the secretaries of the Board *at least ten days beforehand*.

To the candidates unsuccessful *for the first time* either at preliminary or professional examinations one-half of the fee will be reimbursed.

PROGRAMME OF PRELIMINARY EXAMINATION FOR 1904.

Latin.—The Commentaries of Cæsar, books IV, V, VI. The Aeneid of Virgil, books V, VI. Cicero, Pro Milone. A sound

knowledge of the primitive meaning of words, of construction, and of grammar generally will be required.

French.—Candidates whose mother-tongue is French will be required to have a critical knowledge of Racine's "Athalie" and of the first three books of Lafontaine's fables. They will also be required to answer questions of grammar, of etymology and of analysis. English-speaking candidates must translate into English passages from "Telemachus" and answer questions of French grammar. Also, they will be required to translate into French short sentences of English.

English.—Candidates whose mother-tongue is English will be required to have a critical knowledge of one of Shakespeare's plays—"The Merchant of Venice," with notes by Deighton (published by Macmillan & Co.), including also grammar, etymology and analysis. French-speaking candidates must translate into French passages from the first eight books of Washington Irving's "Life of Columbus," and answer questions of English grammar, as in West's "English Grammar for Beginners." They will also be required to translate into English short passages from "Telemachus."

Belles-Lettres.—Principles of the subject and of rhetoric; also History of the Literature of the Age of Pericles in Greece, of Augustus in Rome, and of English and French Literature of the seventeenth, eighteenth and nineteenth centuries.

History.—A general knowledge of the history of Greece and of Rome, and a more particular knowledge of British, French and Canadian history.

Geography.—A general knowledge of the subject, and more especially of England, France and North America.

Arithmetic.—Must include vulgar and decimal fractions, simple and compound proportion, interest, percentage and square root.

Algebra.—Must include fractions and simultaneous equations of the first degree.

Geometry.—The first four books of Euclid and the sixth. Also the measurement of the lines, surfaces and volumes of the geometrical figures, without proofs.

Chemistry.—Elementary principles as in P. Wurtz, Troost, or Roscoe.

Botany.—Elements of the subject as in Moyen, Provencher, Laflamme or Spotton.

Physics.—Elements as in Peck's translation of "Ganot's Physics."

Philosophy.—Logic, as in Jevon's "Logic," and Intellectual and Moral Philosophy, as in Professor Murray's "Handbook of Psychology."

N.B.—Candidates must produce certificates of good moral character. Any candidate detected in copying or in aiding another to copy, or in using books or notes, will be immediately dismissed from the room. At the conclusion of the examination, each candidate will be required to make, before a magistrate then present, a solemn declaration that he had not recourse to any fraudulent means to aid himself in the examination. He must also furnish proof of his identity.

FIRST DAY.—GROUP A.

Geometry.....	9	to	10	.....	100	marks.....	25	per cent. to pass.
Arithmetic.....	10	to	11	.....	100	"	50	" "
Algebra.....	11	to	12	.....	100	"	25	" "
Chemistry.....	12	to	12 $\frac{3}{4}$	.....	100	"	25	" "
Physics.....	2 $\frac{1}{2}$	to	4	.....	150	"	33	" "
Philosophy.....	4	to	5	.....	100	"	25	" "
Botany.....	5	to	6	.....	100	"	33	" "

SECOND DAY.—GROUP B.

Latin.....	9	to	10 $\frac{1}{2}$	.....	200	marks.....	50	per cent. to pass.
Belles-Lettres.....	10 $\frac{1}{2}$	to	11 $\frac{1}{2}$	.....	100	"	25	" "
History.....	11 $\frac{1}{2}$	to	12 $\frac{1}{4}$	.....	100	"	25	" "
Geography.....	12 $\frac{1}{4}$	to	1	.....	100	"	25	" "
Mother-tongue.....	2 $\frac{1}{2}$	to	4	.....	150	"	75	" "
French or English.....	4	to	5	.....	100	"	50	" "

The subjects of the examination are divided into two groups:

(a) Science subjects; and (b) Literary subjects. Candidates must obtain at least half the total marks assigned for each group in order to pass in that group. If they do not, they will have to take the whole of that group again. A candidate who fails to obtain the *minimum* number of marks assigned for any subject in either group will have to take the whole of that group again. It is to be understood that failure in one group does not nullify success in the other.

Examiners.

J. C. K. LAFLAMME, A.M.

A. WALTER, A.M.

A. FRENCH, B.A., OXON.

J. O. CASSEGRAIN, PROF.

Proceedings of Societies.

CLINICAL SOCIETY OF THE NEW YORK POLYCLINIC MEDICAL SCHOOL AND HOSPITAL.

At the stated meeting of the above society, held January 4th, 1904, the Vice-President, Dr. D. S. Dougherty, occupied the chair.

Primary Endothelioma of the Lung and Pleura.—Dr. Maurice Packard presented this patient, of whom he gave the following history: Male, aged 24 years; cigarmaker by trade; father died of endocarditis, sister of apoplexy, brother of diabetes; no history of tuberculosis in the family. The patient gave no history of syphilis or of alcoholism, and claims he was never ill until the present time. About five years ago he began to cough, with very little expectoration, but otherwise was perfectly healthy until fifteen months ago, when the cough became more distressing, and was accompanied by profuse expectoration. He became very short of breath, especially on exertion, and suffered from pains localized anteriorly on the right side. These pains were increased on deep inspiration. There were no night-sweats, nor, at that time, any hemoptysis nor loss of weight. Although the examination of the sputum was negative, he was sent South with a diagnosis of tuberculosis. As there appeared to be no improvement, he remained but a short time. The symptoms continued about the same, but he noticed that the veins of his chest and abdomen were growing larger, and that when he coughed he brought up considerable blood, sometimes as much as a cupful. His sputum examination was still negative.

Dr. Packard saw him for the first time about two months ago, and his examination developed the following: The man was fairly well nourished, but had peculiar varicosities on the chest and abdomen. His right lung did not expand as well as the left, and there seemed to be a change in the dimension of the thoracic arch. Pectoral fremitus was diminished on the right side, from the second to the fifth intercostal space, and from the sternum to the axillary line. Over this area the percussion note was flat, but over the other portions of the same lung, and over the left lung, it was almost normal. Vocal fremitus was diminished, and distant bronchial, almost tubular, breathing could be heard over this affected region. Over the other portions of the lung, the sounds

were normal. The heart, spleen, liver and abdominal organs were normal. Sputum examination and thoracentesis were negative; the urine was normal. One month ago signs similar to the above were found posteriorly in the lower lobe of the right lung.

Erythromelalgia.—Dr. J. C. Lynch presented this case of Wier Mitchell's disease or erythromelalgia, occurring in a man 51 years of age, who was also the victim of tabes. The patient was single, and an officer in the navy. He had had the ordinary diseases of childhood. During adolescence he had pneumonia twice and typhoid fever. While on a cruise to the Far East he had Chinese malaria (?) (From his description one would be warranted in presuming it was lues.) Since he was twenty years old and up to the present time he had been free from sickness, except for three attacks of tripper. After the Spanish-American war he noticed that he had difficulty in holding his water (hurried sphincteric action), which was shortly followed by difficulty in walking (ataxic gait) accompanied by sharp, shooting, stabbing pains in the feet and legs (lightning pains). On consulting the ship's surgeon about his difficulty in walking he was told he was suffering from beginning gangrene of the left foot. He was put to bed, and his condition improved. Six months later the other foot became involved. The first two toes were then amputated. After recovery from this operation he retired from the service.

Acute Thyroidism following Curettage.—This case was reported by Dr. Brooks H. Wells. He said that since the time when the Roman matron measured with silken ribbon the throat of the bride before, and the day after, marriage, to determine by its rounded increase, that she had been a pure virgin, the sympathetic relation of the thyroid gland to the pelvic organs has been vaguely known; but hardly more than a decade has passed since we began to appreciate the various facts that will in time lead to an accurate knowledge of the functions and physiology of this and the other ductless glands.

Under certain conditions there occurs in those individuals who have been the subjects of a thyroid tachycardia a virulent acute toxemia characterized by a well-marked group of symptoms. This toxemia may follow operations upon the thyroid itself, operations upon the pelvic organs, or, more rarely, operations upon the breast or other parts of the body, or any marked nervous strain.

The exact mechanism by which the function of the gland is disturbed or excited is not definitely known. The disturbances after operations on the thyroid itself have been attributed to an outpouring of toxic material into the blood, either as the result of the manipulation to which the gland is subjected, or from a leakage and absorption from its cut surfaces. These causative fac-

tors can be ruled out when the thyroidism follows operations on other parts of the body. In cases similar to the one recorded below it seems certain that the condition is the result of a reflex disturbance of the central nervous centres, and the sympathetic centres that control the activity of the thyroid gland or, as has recently been suggested, of the parathyroids.

The condition is often rapidly fatal, death occurring within the first three or four days from cardiac exhaustion. When recovery ensues the symptoms rapidly or gradually disappear until the individual reaches the status present before the attack.

The following case of acute thyroid poisoning following curettage seemed to possess features of interest which made it worthy of record:

Mrs. X., aged 53, had passed the menopause at the usual time, but during the last six months had had repeated small bleeding from the uterus, which was not enlarged, and was freely movable. She was nervous, thin, and poorly nourished. For many years she had had a slight enlargement of the right lobe of the thyroid, an excitable, rapid pulse and slight tremor, but no protrusion of the eyeballs. Auscultation of the chest revealed a few bronchial rales. No other pathological condition was discovered. To exclude the possibility of beginning cancer of the fundus uteri as a cause for the post-climacteric bleeding a curettage of the uterus was performed under strict asepsis on November 5th, at 10 a.m. The scrapings from the endometrium were examined by Dr. Jeffries, Pathologist at the Polyclinic, who reported that they showed only a moderate grade of endometritis. There were no further symptoms, local or general, that could be referred directly to the curettage.

The anesthetic was given by Dr. Bennett, and was gas followed by ether. After a few breaths of ether her heart became so rapid that Dr. Bennett considered it wise to change to chloroform, under which the heart beats became slower. From the beginning of the anesthesia to the return to consciousness a little less than half an hour elapsed.

Six hours later the patient was flushed, tremulous, nervous, voluble, but not worried, and with mind clear. Her pulse had risen to 130, and became more rapid on any little excitement. Temperature, 100.5 degrees F. Twenty-four hours after the operation the flush, tremor, nervousness and volubility were increased; the pulse had risen to 178, and at times was uncountable; her temperature was 99.5 degrees F. There was profuse sweating, a watery diarrhea, marked irritability of the bladder with polyuria, many soft rales all over the chest, and vomiting. The thyroid was perceptibly enlarged, especially on the right side, and presented a quite apparent thrill. There was marked

throbbing of the heart and large arteries. Examination of the urine showed a sour odor, reaction neutral, sp. gr. 1012, no albumin, no casts, innumerable colon bacilli, and a few pus cells. These symptoms of an extreme toxemia continued to the end of the first week, then her temperature reached 101.6 degrees F., and the auscultatory symptoms of bronchitis became more marked, though there was little cough and little expectoration. Blood examination at this time showed no leucocytosis and no typhoid reaction.

From the fifteenth to the twenty-fourth day the patient's condition was such that death was expected to occur at any time. The toxic symptoms continued, the tongue became dry and brown, there was extreme weakness and the usual relation between temperature and pulse was reversed, so that the most rapid and weak heart action was when the temperature was lowest. The diarrhea ceased to be troublesome on the twenty-first day, and on the twenty-fourth the patient was able to take small amounts of solid food by mouth. From this time on improvement was steady, but slow, until she reached a condition approximating that before the operation.

Treatment.—At the beginning it was thought that some of the symptoms might be dependent upon an intestinal toxemia, and the patient was given calomel, followed by a saline, and repeated high colonic flushings. The bladder for several days was washed out with a boric acid solution at eight-hour intervals, the washing being followed by the injection and retention of two ounces of a 10 per cent. argyrol solution. The diarrhea was finally controlled by tannigen by mouth, ten grains every three to six hours as needed, and starch and deodorized tincture of opium, ten minims, by rectum, every six to eight hours. The insomnia was relieved by the opium and by trional at night, in doses of from twenty grains at first to five grains at a later period. As it became impossible to make the patient retain food given by mouth, rectal alimentation was employed more or less from the eleventh to the twenty-second day. Solid food in small amounts was given on the twenty-fourth day. The heart action and general condition were not benefited by any drug; colonic flushing, strychnine, digitalis, belladonna, suprarenalin, alcohol, all seemed to do more harm than good.

Dr. Robert C. Myles opened the discussion of this case. He said that one of the peculiar characteristics of exophthalmic goitre is the diminished electrical resistance. If some one would experiment with these cases in order to find out, if possible, what alkaloid is discharged into the system, and its exact relation to the thyroid, the speaker thought these cases could be treated more successfully.

Leprosy.—Dr. F. Dillingham presented a patient, male, 58 years. He was born in America, and has lived here, with the exception of one year spent in Mexico, during his entire lifetime. Eight or nine years ago a corn appeared on his right foot. It began to burn, and in a short time a perforated ulcer developed. He had the joint excised, and two years afterwards the second joint was also treated in this manner. Two years later a second ulcer appeared on the other side of the same toe. There are now two perforating ulcers present. This was about all the history the patient could give.

The speaker said that the diagnosis can easily be made from the typical picture presented, and by exclusion of any other condition, because of the lack of essential conditions. The brownish patches here and there, and the peculiar brownish color and scaling appearance of the limb were characteristic of leprosy. There was more or less atrophy of the foot, and also of the hand, but very little loss of sensation. He said there were three types of leprosy, and gave the differential symptoms minutely. The question of contagion was interesting in these cases. In some countries leprosy undoubtedly is contagious, but, in his opinion, this is not true in our climate. There are several cases in this city all the time, and no case has been reported that has developed as the result of contact with another patient suffering from the same condition. He once saw a patient in whose case he made a diagnosis of leprosy, and she informed him that her husband had suffered from the same condition before it developed in her. In countries where leprosy is prevalent, people who have proper food and hygienic surroundings very rarely contract the disease. Some authorities claim that it is infectious, some that it can be conveyed only by direct contact, and some that it is a concomitant of yellow fever and malaria. Experiments have been made by having lepers breathe into a certain receptacle, and colonies of bacteria have been grown from the atmosphere into which they breathed, showing that the mucous membrane of the mouth may be the source of the infection. Inoculation, as a rule, has been negative. The speaker succeeded, some years ago, in inoculating some persons with leprosy, but there was some doubt about its being a leprous family, so that experiment proved nothing. Some guinea-pigs were inoculated with tuberculous nodules, and eight months later bacilli were found in the kidneys, spleen and liver.

The duration of the disease varies, according to the form. Some patients live twenty years after the symptoms appear. The patient before the society had suffered from this condition for about nine years, and, except that it was rather inconvenient for him to get about, he was not incapacitated for work.

Cast of a Bronchial Tree.—Dr. F. M. Jeffries presented a cast of a bronchial tree. He said that the cast was from a patient

suffering from fibrous or plastic bronchitis. It showed the ramifications of the smaller bronchial tubes. The speaker said that it was the first specimen of the kind he had seen in a laboratory experience of twelve years, and for this reason he thought it worthy of note.

New Method of Treatment for Fracture of Neck of Femur.—

The paper of the evening was read by Dr. Royal Whitman. He called attention to the fact that it was generally admitted that the results of treatment of fracture of the neck of the femur are very unsatisfactory. These results are to be ascribed, not so much to the age of the patient or to the severity of the injury, as to the faulty conception of treatment and its perfunctory application. At present it is taught that no attempt should be made to correct the deformity of an impacted fracture, a deformity which is essentially a traumatic coxa vara; while the means employed to appose the fragments and to hold them in position, if the fracture is complete, are quite ineffectual, as demonstrated by the fact that shortening is almost always present when the treatment is concluded. He said that fracture of the neck of the femur is not uncommon in childhood and in vigorous adult life, but as it is often incomplete, it is usually classed as contusion. These cases are unrepresented in hospital statistics.

The treatment which he had already described as applicable in childhood (*Annals of Surgery*, November, 1902), he would, on further experience, now urge as one of routine in all favorable cases. In principle, it is a method of replacing the depressed neck if the fracture is incomplete or impacted, and of apposing and retaining the fragments in approximate apposition if it is complete. If the fracture is impacted, the patient having been anesthetized, the extended limb should, under traction, be slowly abducted. As in every instance in which depression of the neck is present, abduction would be checked when the neck comes into contact with the upper border of the acetabulum, further forcible deduction by means of the leverage of the extended limb on the fulcrum of the acetabulum would disengage the impaction and elevate the neck. At the limit of normal abduction a long, plaster spica bandage should be applied. If the fracture is complete the shortening should be reduced by traction and counter traction. The limb should then be abducted, and by downward pressure on the trochanter the outer fragment may, if of sufficient length, be pushed beneath the rim of the acetabulum. Abduction should then be increased until the trochanter is brought into contact with the side of the pelvis, so that upward displacement is impossible. In this attitude it is evident that muscular contraction becomes powerless to induce deformity, while the firm support of the plaster bandage permits necessary movements without danger of displacement. The details of the treatment and the after-treat-

ment were described, and the modifications that might be necessary to meet varying indications. In closing, the reader again called attention to the large number of patients, still youthful or in vigorous old age, who, because of failure of diagnosis and inefficient treatment, were in great degree disabled by this injury. He said that the limitations of weakness and age so often urged as an excuse for the present ineffective and perfunctory treatment should not be extended to this class, but that one should attempt to apply here the principles that are admitted as being essential to the successful treatment of fracture in other situations.

Dr. J. A. Bodine opened the discussion of this paper. He said that it was particularly interesting to him because he had controlled practically the largest fracture service in the country at St. John's Hospital, Long Island City. Some years ago he had been called to see a patient, who, as far as he could make out, had sustained an injury to the patella ligament, and there was relaxation between the patella and its insertion. He had never been told that fracture of the neck of the femur was a condition of young life, and sent the patient to Dr. Whitman, who made the diagnosis. Most of the patients were forty, fifty, and even sixty years of age, who were included in the speaker's service, and were thin and emaciated for the most part, and an anatomical cure was more than could be hoped for. If the patients could get about with the limb supported by a high shoe, the surgeon had to be content, but in future, the speaker would be glad to try Dr. Whitman's method. About two years ago Dr. Maxwell reported several cases in which he put on twenty to thirty pounds pressure to reduce the shortening, and in addition lateral extension of some ten pounds, as he claimed that in case the neck of the bone was pulled down, a better position resulted. He showed four post-mortem specimens secured from patients who died some years after this method was applied, which showed almost perfect union. Dr. Whitman claimed these ends could be brought into apposition. His method possessed a great advantage over others. But in young people why not use direct operative interference? The surgeon can cut down, certainly, on the great trochanter.

In reply to Dr. Bodine, Dr. Whitman said that twenty-six cases of fracture of the neck of the femur in childhood had come under his observation, and that in a single year he had seen five cases in young adults in not one of which had the diagnosis been made. He was not ready to admit that because a person was sixty years of age treatment was useless. Direct operative intervention is, of course, a treatment of last resort, that may be applied only under favorable conditions. It, however, might be the treatment of selection for partial epiphyseal separation in young subjects.

The Canadian Journal of Medicine and Surgery

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., must be in our hands by the fifteenth of the month previous to publication.

Advertisements to insure insertion in the issue of any month, should be sent not later than the tenth of the preceding month. London, Eng. Representatives, W. Hamilton Miln, 8 Boulevard Street, E. C. Agents for Germany Saalbach's News Exchange, Mainz, Germany.

VOL. XV.

TORONTO, MARCH, 1904.

NO. 3.

Editorials.

THE PRELIMINARY EXAMINATION FOR THE COLLEGE OF PHYSICIANS AND SURGEONS OF QUEBEC.

AT page 187 we publish the programme of the preliminary examination for 1904 of the College of Physicians and Surgeons of Quebec. It will doubtless be interesting to our readers, few of whom know anything of the educational standards required in order to be admitted to the study of medicine in Quebec. At a meeting of the Quebec Board of Physicians and Surgeons held in the city of Quebec, September, 1903, among other important mat-

ters the question of a compulsory B.A. course, or *cours classique complet*, before admission to the study of medicine was discussed. With regard to the *cours classique complet* it may be well to explain that there are in the Province of Quebec several well-equipped colleges, in which French is the language of instruction. The professors are Catholic priests, and teaching is imparted at a very moderate cost. A boy who begins his course in such a college at ten, finishes it at eighteen, and leaves college a *bachelier es lettres*. This degree is, of course, not the equivalent of a B.A. degree of a Canadian University, but it shows to the public that its possessor has received a literary and classical education, amply sufficient as a preliminary to the study of medicine and law. There is no means of obtaining this diploma under similar circumstances in a Protestant English-speaking college in Quebec. McGill University and Bishop's College are universities intended for men. The instruction imparted at a high school in Quebec fits a boy to matriculate at a university, but is not the equivalent of the *baccalaureat* to which we refer. If it were so a boy who had completed his high school course at sixteen or seventeen would be as far in advance as the French-Canadian collegian, who passes the *baccalaureat* examination at about the same age.

When the question of the preliminary examination in medicine was discussed last September by the College of Physicians and Surgeons of Quebec, it seemed unjust to force a preliminary examination, such as the *cours classique complet*, on French and English alike. The French-Canadians had in their colleges the machinery for providing the requisite education at a low cost, and the English-Canadians did not have it.

Moreover, and this is a most important reason, the authorities of the French-Canadian colleges, who are engaged in training boys for the *baccalaureat*, do not propose to go out of business. Neither do their friends, the French-Canadian members of the College of Physicians and Surgeons of Quebec, intend to force them to do so. Although this motive is founded on self-interest, the French-Canadian Catholic colleges are not blameworthy, least of all should they be censured by any medical publicist, who is jealous of the reputation of his profession for scholarly training.

Looking at the other side there is no chance for English-speaking students to get an education equivalent to the *cours classique complet*, except in the large cities, and even then the fees are very much higher than in the French-Canadian colleges. The outcome would be that to place French-Canadian and English-Canadian boys in Quebec on an equal level in educational facilities, from the standpoint of expense as well as efficiency, it would be necessary for the English-speaking boy to be educated at a French-Canadian college. Two objections occur: difference of religion, and a foreign language. After considering the question in detail, an amendment was passed by the College of Physicians and Surgeons of Quebec to the effect that the Catholic or French-speaking candidate, desiring to begin the study of medicine, would have to present the diploma for the *cours classique complet*, or be prepared to pass an examination equivalent to that which would have been required for admission to the *baccalaureat*, and that the law would remain unchanged for the Protestant and English-speaking candidate. In other words, the French and Catholic student is obliged to be a *bachelier es lettres*, or to pass an examination sufficient to obtain that degree before beginning his medical studies; the Protestant English-speaking student escapes with the examination, the subjects of which we publish at page 189. These changes do not come into force until passed by the Quebec Legislature, but it is probable that they will soon become law without alteration.

Through no fault of their own, the English-speaking Protestant students of Quebec are, by the proposed legislation, forced to a lower level of literary culture than their rivals, and the reasons for such a course are two: unwillingness to patronize French-speaking colleges, or the absence of English-speaking colleges in which a student can be trained for the *baccalaureat* at a moderate cost. By demanding that French-Canadian medical students shall have the hall-mark of literary culture stamped on them, French-Canadian colleges place themselves in a strong position. As the English-speaking Protestants of Quebec do not provide their boys with literary culture at moderate rates, they should employ some of their wealth in remedying the evil, and thus prove that the Anglo-Saxon is willing and able to exert himself to overcome existing educational difficulties in Quebec.

AN AMERICAN MAGAZINE WHICH LIBELS TORONTO PHYSICIANS IS EXCLUDED FROM CANADIAN MAILS.

THE Postmaster-General of Canada, Sir William Mulock, has determined to put an end to the circulation through the Canadian mails of magazines, books, or publications of any kind which contain anything of an immoral, libelous, or indecent character, and, in furtherance of this view, the following notice has been issued:

"If it is established to the satisfaction of the Postmaster-General that any person is engaged in the business of publishing any obscene or immoral books, pamphlets, prints, engravings, lithographs, photographs, or other publications, matter, or thing of an indecent, immoral, seditious, disloyal, scurrilous, or libelous character, or in the business of an illegal lottery, so-called gift concerts, or other similar enterprise, offering prizes, or concerning schemes devised or intended to deceive and defraud the public for the purpose of obtaining money under false pretences, or in the business of selling or in anywise disposing of, counterfeit money, or what is commonly called 'green goods,' or of drugs, medicines, instruments, books, papers, pamphlets, recipes, prescriptions, or other things, with the object, or with the pretended object, of committing a crime, and if such person shall, in the opinion of the Postmaster-General, endeavor to use the Post Office for the promotion of such business, it is hereby declared that no letter, packet, parcel, newspaper, book or other thing sent, or sought to be sent, through the Post Office by or on behalf of, or to or on behalf of, such person, shall be deemed mailable matter."

We heartily commend this ordinance, and intend to act as a censor, moreover, drawing attention from time to time to the misdeeds of the quack medicine manufacturers, who have used, and continue to use, Canadian newspapers with the pretended object of committing crimes.

An important example of quite another feature of the new regulations cropped up last January. The October (1903) number of a monthly magazine, called *Physical Culture*, contained a libelous article, in which five Toronto physicians were attacked. The magazine in question is published in New York, but the ob-

jectionable article purported to have been written by a correspondent living in Toronto. The full names of the libeled physicians were not given, their identity being thinly veiled under the guise of initials. The first was described as an unfair medical examiner, the second as an imbecile, the third as a rogue, the fourth as a drunkard, and the fifth as a special resident agent of His Satanic Majesty. When this disgraceful lampoon was brought to the attention of the authorities of the Postmaster-General's Department, prompt action was taken, and it was decided to put an end to the circulation through the Canadian mails of such disgusting literature. During January of this year *Physical Culture* was not offered for sale by Toronto newsdealers, for the reason that transit through the Canadian mails was refused. During February the libelous magazine was for sale in Toronto, and we learned from a newsdealer that it had been brought to Canada as freight. A precious freight, indeed! The literary style of this magazine is of the poorest, its information vapid, photographs of the fleshly type being freely used for padding.

People who have devoured the husks of *Physical Culture*, expecting to learn something about dietetics and hygiene, should turn to the well-written articles of *The Sanitarian* or *The Dietetic and Hygienic Gazette*, both of which are published in New York.

In addition to moral reasons, the motive which animated Toronto physicians in prescribing heroic treatment for *Physical Culture* is sufficiently clear:

"The purest treasure mortal times afford
Is spotless reputation! that away
Men are but gilded loam or painted clay."

The ban imposed on *Physical Culture* by the Canadian Postmaster-General has not been raised, and we hope it will not be raised. As *Physical Culture* has jumped the fence, and is resolved to get into the Canadian fold by hook or by crook, onlookers on this side of the line will be curious to learn what effects, if any, have followed the severe depletion which has been tried in his case. Perhaps it may do good; at all events, the patient cannot consistently object to it, for he is an advocate of a low diet, amounting to semi-starvation, and should not refuse to practise what he preaches.

J. J. C.

“ FINE WEATHER INDADE FUR TINTIN’ OUT.”

AMONG the new inventions chronicled in *The Lancet*, London, Eng., Jan. 30th, is a patent health tent, manufactured by Messrs. S. Wilson & Co., of Bedford Street, Belfast, who have sent to Bartholomew’s Hospital an illustrated description of their “ patent health tent,” in which there are no poles visible when the tent is erected and an air space six inches wide is provided between the inner and outer layers of canvas for the purpose of reducing variations of temperature. A centre pole is not used. A special feature of the tent is stated to be the employment of stretchers and of cross-stays connecting the vertical poles together in such a manner as to be adjustable lengthwise. These stretchers are, in fact, strong spiral springs, and in this way the canvas is firmly held both in wet weather and in dry. The makers believe that the tent will be found useful in the open-air treatment of tuberculosis and in the isolation of cases of infectious disease.

The Western Hospital, Toronto, claims to have made a great success of the treatment of those of their patients who have been domiciled in tents. Certainly the idea is gaining in favor among medical men, but that the laity need further enlightenment upon the subject was brought to the notice of one of our staff recently, on a day when the thermometer registered several degrees below zero. While awaiting change in a florist’s, the customer standing beside him ordered some roses sent to a patient at the Western Hospital. After giving the address carefully, “ In a tent in the grounds,” was added. The florist was an Irishman, born and bred, and had evidently “ come over ” lately and brought his accent with him, and with a gleam of humor in his eye he looked up and said: “ In a tint, sor? Begorra! it’s the foine warm weather fur tintin’ out.” As he went on with his work he laughed to himself and repeated: “ Tintin’ out. Shure, it would fraize the tail off a brass monkey, but the divil himself couldn’t be up to the invintions in this country; sorra a tint fur me, bad cess to them!”

A wayfaring man and a fool, perhaps, but fools and children sometimes speak the truth.

W. A. Y.

EDITORIAL NOTES.

Balsam of Peru in the Treatment of Compound Fractures of the Bones.—A communication made to the recent French Congress of Surgery, by Dr. Van Stockum, Chief Surgeon of the City Hospital of Rotterdam, shows that progress in the art of surgery occasionally reverts to the practice of the older surgeons. Like others, Dr. Van Stockum had treated recent compound fractures by a free opening down to the seat of the fracture, thus permitting a careful toilet of the part by the removal of splinters or the resection of bony fragments according to the case, by end to end coaptation of the broken pieces, with or without bony suture and by superficial tamponment. Becoming dissatisfied, like other surgeons, with the results obtained, he had recourse to a line of treatment, which was said to have been uniformly successful in the hands of one of his predecessors, Dr. J. Van der Haven. The method is very simple. It consists in impregnating the seat of fracture with balsam of Peru. Dr. Van Stockum applies it as follows: The injured person is laid on an operating table, and the surgeon, having diagnosed the injury as a compound fracture, removes, with a sterilized dressing forceps, any foreign bodies found on the surface of the wound. Neither the wounded limb, the skin surrounding the wound, nor the wound itself, is washed or disinfected in any manner whatsoever. No ligatures are applied to stop hemorrhage unless a large artery should bleed. The entire seat of fracture and all the recesses of the wound are filled with a large quantity of sterilized balsam of Peru, by separating the edges of the wound with forceps. Slight movements are imparted to the limb in order to obtain a displacement of the fractured extremities and the penetration of the balsam. The fracture is then reduced as if the surgeon were treating a simple fracture. When the skin orifice is very small a sterilized syringe is employed to inject the balsam. In no case is a gauze drain introduced into the wound. After the fracture is reduced the surgeon applies an aseptic gauze dressing, the first compress being soaked in the balsam of Peru, which thus flows to the surface of the wound and the surrounding skin. Over the gauze compresses he puts a thick layer of absorbent cotton and fixes the whole dressing with a gauze bandage. When the dress-

ing has been applied, the limb is immediately placed in a plaster splint or an apparatus for supplying continued extension. Dr. Van Stockum prefers the plaster splint, because a rigorous immobilization appears to him to give the most precious help in the method he employs. The first dressing is allowed to remain on ordinarily for three weeks. During the first day the temperature rises regularly, often by the fourth or fifth day it reaches 102.2 F., but after the fifth or sixth day it begins to fall rapidly, and finally remains normal. When the dressing is taken off after three weeks, the surgeon finds a wound which has cicatrized, or one in which granulation goes on without the least inflammation. Mortified tissues are found in a mummified condition in the midst of the granulations. The edges of the wound are neither tumefied nor red, and the firmest pressure does not cause the expulsion of pus or any discolored fluid from it. In the deeper parts bony union is perfect, or on the way to become so. One or two dressings with the balsam of Peru—rarely more—applied like the first one, suffice to complete the cure. Dr. Van Stockum's statistics show that from August, 1899, to October, 1903, he treated 90 cases of compound fracture (58 of the leg, 4 of the thigh, 9 of the forearm, 6 of the upper arm, 2 of the pelvis, 1 of the patella, 2 of the calcaneum, 8 of the inferior maxilla), in fact, all the cases of compound fracture brought to the Rotterdam Hospital. The treatment failed in 4 cases (4.5 per cent.), in which the seats of fracture suppurated. Of these 4 cases, 3 (1 fracture of the leg, 1 of the thigh, 1 of the arm) healed without any secondary operation; in one case only a gaseous gangrene necessitated a secondary amputation, but the patient recovered. In the 86 remaining cases, that is to say, in a proportion of 95.5 per cent. the fractured bones became solid, and the flesh wound healed without the least suppuration, except in 8 cases, in which a fistula appeared. In the greater number of the fistula cases, the wound was kept open by the presence in its deeper parts of infected foreign bodies, such as bits of wood, pieces of straw, or bone splinters, which had to be extracted. Of the three cases of fracture of the inferior maxilla, which belong to the fistula category, the surgeon, in one case, had to remove the fractured ends of the bone, which had been sutured with silver wire. Bony union was, however, complete; in the two other

cases, he merely eurented the little fistula. Dr. Dumont says, in *La Presse Medicale*: "The results obtained by Dr. Van Stockum are really remarkable. If any surgeon will compare them with the results obtained by other methods in compound fractures, he will be convinced that the method of "embalming wounds" deserves to be tried by practitioners; all the more because it is so simple that it can be applied by the least skilful surgeon, and anesthetics are not required. It diminishes, in a notable manner, the pain and disagreeable sensation which are inseparable from frequent dressings of fractures. With regard to the *modus operandi* of the cure little can be said. The high temperatures observed during the first days of treatment and the still higher temperatures which supervene after a premature change of the dressing, prove conclusively that the wound is an infected one. Besides the bactericidal effect of balsam of Peru is almost nil. The balsam of Peru may act simply by assisting in the natural defence of the organism, *i.e.*, the development of leucocytosis. In this connection the experiments of Landerer may be noted. That observer, after injecting balsam of Peru, or one of its component parts, cinnamic acid, into tubercular patients, observed that the patients developed a considerable leucocytosis. So much for theory. Dr. Van Stockum has demonstrated that the embalming of compound fractures with perfect rest is good surgical practice.

Phototherapy or Aerotherapy in Treatment of Granulating Wounds.—Some curious and remarkable instances have been recorded by medical writers indicating the potency of sunlight in causing the cicatrization of wounds. Thus Dr. Bloch informed the Societe de Biologie (Paris) that to his own knowledge, burns, chronic ulcers and fistulae, which had resisted classic treatment, had been cured by exposure to sunlight. He observed that almost immediately after any case of this kind had been exposed to light a notable and occasionally a surprising improvement took place. Ulcers dried up, rapidly becoming covered with a thin pellicle, their infiltrated borders softened, and cicatrization rapidly advanced from the periphery to the centre. Dr. Bloch, who attributes these results to sunlight, observes that they are less satisfactory when red light is used and that they do not occur when the sore is covered. Hence he concludes that it is white light which

vivifies atonic ulcers, energizes the work of cicatrization, and by the desiccation of the sore and the formation of a pellicle supplies a kind of protection from the microbes contained in the air. A curious fact recently reported by Dr. Sörgo to the Society of Internal Medicine of Vienna, seems to support Dr. Bloch's theory. Dr. Sörgo was treating a man, who suffered from a well-marked tubercular laryngitis. His treatment consisted in submitting the lesion to the action of sunlight, the rays being brought to bear on the ulcerated mucous surface of the larynx by means of a laryngoscope. After thirty treatments by phototherapeutic laryngoscopy, each sitting lasting about an hour, the vocal cords resumed their normal color and the tubercular ulceration healed. Strange to say, the same treatment completely failed when it was tried on a case of syphilitic laryngitis. It may be the air which helps to cicatrize wounds. Dr. Wagner, in *Centralblatt für Chirurgie*, attacks the ordinary methods of dressing wounds. In his opinion, no matter how it is applied, there is always an occlusive covering, such as gauze, oil, or powder, and the principal effect of such a covering is to retain the secretions of the fleshy granulations, as well as those of the sweat and sebaceous glands. He thinks that this covering produces an effect similar to that resulting from a damp room, or a hot oven, conditions very suitable to increase the virulence of germs and to stimulate the vitality of the granulations. To cause the cicatrization of wounds covered with granulations, it is necessary, in his opinion, to reduce as much as possible the hurtful effect of an occlusive dressing. Hence he tried the effect of covering the sore with an absorbent powder during the night, and exposing it uncovered all day to the action of the air. He says that the results of this plan are very satisfactory. The first noticeable effect is that the secretion of the sore diminishes, and soon dries up completely. The granulations retract, flatten, and become less and less prominent, while the infiltrated, indurated borders of the ulcer become thinner, and finally fade insensibly into the surface of the ulcer. Then an epithelial border appears, a pellicle, the concentric advance of which becomes noticeable in two days. Simultaneously, in the centre of the ulcer, and a little in all parts of it, epidemic islets appear, derived from the epithelium of the sudoriferous and sebaceous glands, and they are so

many centres of cicatrization. From day to day this epidermization progresses so that, in wounds as large as the palm of the hand, cicatrization is complete in from eight to ten days. More time is required in old varicose ulcers. Dr. Wagner declares that this treatment is usually successful, and that an ulcer treated by aerotherapy does not get infected, unless it is exposed to the infection of erysipelas. Dr. Wagner's theory of the cicatrization of wounds by aerotherapy is that it is due to the action of the air, which excites the epithelial cells, and, at the same time, to the drying of the wound, which causes the death of the virulent germs abounding in it.

Poisoning by Methyl Alcohol (Wood Spirit).—In the *Montreal Medical Journal*, January, 1904, Dr. Buller, Montreal, publishes a paper showing the extremely dangerous effects of wood alcohol on the eyesight of persons who use it as a beverage. Dr. Buller reports three cases of blindness due to this cause, which had come under his treatment during the last year. As wood alcohol is occasionally used for beverage purposes, Dr. Buller thought that bottles in which it is put up should bear the label, "Liable to cause blindness." Another source of toxic amblyopia is the inhalation of the fumes of wood alcohol. During the process of hat-making, a room in the hat factory is saturated with the fumes of wood alcohol. Workpeople breathing air so contaminated are liable to suffer from amblyopia, although the toxic effects of the wood spirit are developed more slowly than when it is drunk.

J. J. C.

Provincial Board of Health Dined.— A very enjoyable dinner was given by Dr. Kitchen, of St. George, Ont., Chairman of the Ontario Provincial Board of Health, on February 3rd, at the King Edward Hotel. Many were the speeches—witty, wise and congratulatory. The subjects of the latter, or rather the mortals who bore their blushing honors thick upon them, were Dr. P. H. Bryce, the newly-appointed Inspector of the Department of the Interior, whose future residence is to be Ottawa, and the newly-appointed Secretary of the Ontario Provincial Board of Health, Dr. Charles H. Hodgetts. We congratulate Dr. Kitchen upon the success of his perfectly planned hospitality, more especially as we have just read (with sorrow) in a New York magazine that such occasions are, ere long, to become but memories of the past.

for Boards of Health, medical men, and microbes alike are to be deprived of employment by the influence of condensed sunlight, and, over all, radium is to reign conqueror. Refrain from tears, at least, until all, like Pat, "are kilt and murdered entirely, and out of work!" While that evening we were meeting, greeting, and picking a turkey bone in Toronto, over in Gotham the New York Technology Club were drinking "the toast of the evening" at their annual banquet, in a radium cocktail, called "liquid sunshine." According to the magazine, the recipe consists of "one part of sulphate of quinine, fifty thousand parts of water dissolved. Insert a tube of radium until sufficient radio-activity is developed to cause the water to become fluorescent. Drink in darkness." Such a beverage may become popular, but let us hope like Moses Ikenstein's accidental fire—"Not this Tuesday, mine friend. Oh, no, next Tuesday!" We wish Dr. Bryce and Dr. Hodgetts many happy years of usefulness in the respective high places to which their fitness and ability call them, and to Dr. Kitchen ever his cup of life overflowing with sunshine.

W. A. Y.

PERSONALS.

DR. FABIAN BLANCHARD, of Lindsay, has been appointed associate coroner for Victoria.

DR. W. M. ENGLISH was last month elected Chairman of the Civic Board of Health of London, Ont., by a toss of a coin.

DR. WALTER CRAWFORD, formerly of London, Ont., has successfully passed his examinations in London, Eng. Dr. Crawford was married in London, on February 9th, to Miss E. May Grimes, a poetess, who has already spent eight years in mission work. The young people will leave shortly to undertake missionary work in East Africa.

MR. GEO. H. MACFARLANE, who for many years has represented the E. W. Gillett business in Manitoba, North-West Territories, and British Columbia, has been appointed assistant general manager of E. W. Gillett Company, Limited. Mr. Macfarlane's long experience in the business, and knowledge of the requirements of the trade, fit him for this responsible position. His

many friends in the West and elsewhere will be pleased to hear of his promotion.

A PRETTY and very quiet wedding was solemnized in St. John's Church at 2 o'clock, on January 25th, when Mrs. F. M. Fraser, of "Hylinda," Toronto Junction, was married to Dr. S. H. McCoy, of St. Catharines. The wedding ceremony was conducted very quietly, and only the immediate relatives of the contracting parties were present. Rev. F. H. DuVernet, rector of St. John's Church, officiated, and the groom was supported by his brother, Mr. David H. McCoy. After the ceremony the guests enjoyed a wedding breakfast served at the residence of Mrs. L. Cook, the mother of the bride. Dr. and Mrs. McCoy left for New York late the same afternoon, whence they sailed on the *Cedric* for London. They will remain in Europe about a year, and on returning to Canada will take up their residence in St. Catharines.

Homewood Sanitarium, Guelph.—The Homewood Sanitarium, Guelph, had the most successful year in the history of the institution during 1903. The Superintendent, Dr. A. T. Hobbs, in his annual report to the directors, stated that there were one hundred and fifty patients under treatment during the year, of which a little over one hundred were new admissions. Accommodation for ten more patients was made during the year by the building of a Nurses' Home in the grounds, apart from the institution. This was found insufficient to meet the demands for more room. The directorate then decided to build a house for the Superintendent, and to remodel the apartments now occupied by him for the accommodation of voluntary lady patients only. This suite of apartments will be up-to-date in every particular, and will be opened sometime in April of this year. There is also under contemplation the erection of another large building to accommodate forty to fifty mental cases, which will allow of a still better classification. This will then increase the accommodation of the Homewood Sanitarium to one hundred, with all modern appointments, and it is the intention of the directorate to make the Homewood Sanitarium second to none on the continent, for the treatment of Nervous, Mental and Habit Cases. The directorate, who are spending money so freely in improvements and additions, hope to retain the confidence of the profession at large, in endeavoring to meet the wants of their patients in every possible way, and in affording them every care and protection while under treatment.

Obituary

THE LATE DR. SANGSTER.

DR. SANGSTER, of Port Perry, than whom there was no physician more widely known in Ontario, died suddenly on January 27th, of heart disease, at the King Edward Hotel. Dr. and Mrs. Sangster came to Toronto the day before to meet their daughter and son-in-law. Miss Sangster was married a few weeks ago to Dr. S. C. Corbett, of Winnipeg, one of the leading physicians of Western Canada, and the head of the Dominion Government Medical Service there. They had been on a wedding trip to Bermuda, and were just returning for a short stay in Port Perry and Port Hope before going back to Winnipeg.

Dr. Sangster, who had been a sufferer from attacks of heart disease for two years, was in good health and spirits the day before. About three o'clock in the morning Mrs. Sangster noticed that he was breathing in a peculiar manner, and called Dr. Corbett, who was in an adjoining room. Dr. Corbett gave him all the assistance possible, but Dr. Sangster only breathed once or twice after he entered. A physician was also hurriedly summoned, but Dr. Sangster was then beyond human aid.

Dr. Sangster, who was seventy-two years of age, leaves a wife and four children: Dr. Sangster, of Port Perry, two sons in the civil service at Ottawa, and Mrs. Corbett. The remains were taken to Port Perry the same afternoon.

Dr. Sangster, known to men in the thick of the fight to-day as the author of "Sangster's Arithmetic," and the teacher of teachers, will be remembered by laymen chiefly as the physician who made such a strong fight against the method of composing the council of the Medical Association of Ontario. The council was composed of representatives elected by the profession throughout the Province, representatives of the colleges and of the homeopaths. Dr. Sangster claimed that colleges not teaching medicine should not have representatives on the council, and this fight was carried to the Legislature, where he won a good part of his case. Of late years Dr. Sangster had been an elected member, and had become in sympathy with the council as now constituted.

The late Dr. Sangster was an Englishman by birth, son of the late John Alexander Sangster. He was born in London on March 26th, 1831, but came to Canada with his parents when very young.

His early education was received at the Upper Canada College. Entering the teaching profession, he became connected with the Provincial Model School at Toronto in 1846. After a few years there he went to Hamilton in 1853 in order to organize public schools in that city. Five years later he returned to Toronto, and was appointed first master in the Provincial Grammar School. The following year (1859) he became lecturer in science and mathematics in the Normal School, and in 1865 was made headmaster. In the meantime he had graduated in arts with honors at Victoria University, Cobourg, in 1861, and in 1864 had taken his M.D. at the same institution.

Dr. Sangster continued in the headmastership of the Normal School till 1871, and held also the posts of Professor of Chemistry and Botany at Victoria University. In 1874 he made an unsuccessful attempt to get elected as the teachers' candidate in the Council of Public Instruction, his successful opponent being Professor Goldwin Smith.

Later Dr. Sangster determined to enter on the active practice of his profession, and started at Port Perry. His name soon became known in the medical world. In 1894 he was elected to the Ontario Medical Council, and of the Medical Defence Association connected with that Council he was the leader.

Dr. Sangster is widely known from his writings. Between 1858 and 1871 he prepared and published a number of school books which took rank as the exclusively authorized text-books for the public schools of the Province. He has also written extensively on public questions and was a powerful platform speaker. He was the orator of the day at the "hoisting our flag" demonstration at London, Ont., in July, 1892, when he took for the subject of a capital address, "One Century's Transformation in Canadian Life." At the celebration of the jubilee of the Normal School, Toronto, in 1897, he delivered an able speech on "Progress in Education." Dr. Sangster also wrote a series of letters in the *Mail* over the signature of "Gracchus" during the Equal Rights Movement in 1890.

Dr. Sangster was a member of the Church of England. He was twice married, in 1851 to Miss Mary Price, of Toronto, and in 1871 to Miss Caroline Elizabeth McCausland, also of Toronto, who survives him.

Correspondence.

The Editor cannot hold himself responsible for any views expressed in this Department.

MEDICAL CERTIFICATES FOR SCHOOL CHILDREN.

To the Editor of THE CANADIAN JOURNAL OF MEDICINE AND SURGERY:

DEAR SIR,—At a meeting recently held in the Normal School of this city for the purpose of discussing some questions pertaining to school hygiene, some things were said that objection was taken to at the time, and I believe will be very emphatically objected to by medical men generally.

The Chairman—Mr. Scott, Principal of the Normal School—in discussing Dr. Bryce's paper, was understood by the writer of this letter to say that he (Mr. Scott) did not believe that teachers should pay much attention to the medical certificates presented by children who had recovered from contagious diseases and wished to be allowed to return to school. In support of this contention, he cited a case to show how much more reliable a teacher's diagnosis was than the medical certificate. A child handed the teacher a medical certificate. The teacher looked at the child and then at the certificate. The child began to cough. The teacher decided that the child had whooping cough, and that the certificate had not, so promptly separated one from the other—the child going back whence it came, and the certificate, as we may presume, duly labelled as a medical curio, and sent to the Health Officer to show the great void in the intelligence and integrity of our profession. In naval parlance such a statement—which not only assails the status of our profession, but also menaces the veracity of any reputable physician who gives one of these certificates—would be considered as a shot across the bow of our ship, and treated as a signal to clear the deck for action.

In reply to this statement, if time or space permitted, it could easily be verified by indisputable evidence that, in no other calling has there been greater zeal shown in the pursuit of knowledge, a more fruitful harvest reaped, and a quicker application made, of the use of this knowledge for beneficent purposes. One proof of what has just been said was furnished in Dr. Bryce's paper, where it was stated that the strict application of scientific methods in the prevention of contagious diseases could be reckoned with about as accurate precision as the value of coal as a power-producing factor. If this be true, why is not the reputable physician—

who has attended the child, and who has had very full opportunities for observing how carefully these scientific methods have been carried out—in every way better qualified than the teacher, to say when the child may be safely admitted to the class-room? For Mr. Scott to make any comparison between the ability of these two classes as to which is the better qualified to act as judge in this matter, is to take a position that is not only untenable, but absurd. We as physicians have the highest respect for our teachers, and therefore strenuously object to anything being done that would mar the pleasant relationship that now exists between us. Coming now to speak of the veracity of physicians. If they cannot be trusted to write an honest certificate about a disease, how is it they are the confidantes of their families far more unreservedly than any other class is—the clergymen not excepted? Not only have physicians won an honorable standing in the social and moral world, but such great financial concerns as life insurance companies stake their very existence on the veracity of medical men. Why, then, should the truthfulness of physicians in regard to medical certificates be so disparaged by the teachers?

There was another phase of this question presented at that meeting the propriety of which will be questioned by most medical men, viz., Dr. Hodgetts' literal interpretation of the Act bearing upon this question. The doctor bore down heavily on the unwary practitioner, and would have him understand, once for all, that it was only at the fiat of the Board of Health that a child could be admitted into the class-room after recovery from a contagious disease. Many of the readers of this journal will smile at the doctor's assurance, and take the liberty to ask—notwithstanding that he is clothed with authority—by what occult process Bill Jones and Dick McGinty, famous ward-healers, became suddenly transmuted into medical experts, whose knowledge of contagious disease and veracity were to be considered "far and away" beyond those of the medical attendant? Most medical men have had some rather amusing experiences with these underlings of the Health Department. However, Dr. Hodgetts will doubtless gather wisdom along the rugged roads of experience. His predecessor, Dr. Bryce, being a very wise and prudent man, with a judicial cast of mind and much political sagacity acquired from long association with statesmen, scented danger in the too literal translation of the legal code by his successor. Dr. Bryce would have the general practitioners very clearly understand that all the laws and regulations framed by the Provincial and municipal Boards of Health were specially designed to be of the most benignant character toward them. If the irritable mother objects to her child being kept out of school too long, the medical attendant has only to take off his hat, make a low bow, and say:

"Excuse me, madam, I am only a physician, and not supposed to know when it will be safe for your child to mingle with others. The Health Office, madam, will send up a gentleman!!! who alone is able to judge in this matter." The doctor, as a sort of penance for having the lady inadvertently mistake him for a person of some intelligence, remains bare-headed, and keeps bowing until he backs out to the street. Under such circumstances, we can surely appreciate the benevolence of Dr. Bryce and the Health Boards for all it is worth.

JOHN HUNTER.

S O'Hara Ave., Toronto.

School Gardens.—Miss Louise Klein Miller, director of the Lowthrop School of Horticulture and Landscape Gardening for Women, says that in Austria-Hungary alone there are 18,000 school gardens, and in France there are said to be 28,000, and in all Europe over 100,000. In France the teachers are required by law to be able to instruct their pupils in the elements of agriculture and horticulture, and normal schools have been established for the purpose of giving teachers such training. No plans for school buildings to which the State contributes are approved unless accompanied by plans for a school garden. In these gardens the pupils are shown practically the simpler details of horticulture, and are given charge of every stage of the cultivation, from the preparation of the soil to the gathering of the harvest. In this country the system has been successfully undertaken, and it is likely to extend rapidly. It can be combined with other instruction, as is well shown by the work at Hyannis, Mass. At the school gardens of the State Normal School there the "products of the garden are sold, the money is taken to the bank and deposited, and the children learn the method of depositing and drawing checks." The study of horticulture is compulsory in Belgium. In Germany and England school gardens are encouraged, but not regulated by law. A difficult problem, says Miss Miller, for the economist and sociologist to solve, is the herding together of a large population in a crowded city. Strenuous efforts are being made to turn the tide countryward and induce persons to seek homes where life will be freer and more wholesome. If the elements of agriculture and horticulture were taught in country, town and, so far as possible, in city schools, in an intelligent and attractive manner, life in the country would be the joy that the opportunity affords. Those interested in the subject may consult "How to Make School Gardens," by H. D. Hemmenway: Doubleday Page & Co., 1903.—*Am. Med.*

❧ *News of the Month.* ❧

DR. RICHARD MOULTON'S VISIT TO TORONTO UNIVERSITY.

IN the visit of Dr. Richard Moulton, of Chicago University, to Toronto, on January 23rd, academic and popular interests are united in a rare degree. Richard Moulton is the youngest but the best known of three eminent brothers. The eldest was the headmaster of one of the schools at Cambridge, and as a student and critic of Biblical Greek, had a seat upon the committee which revised the New Testament. The second, Mr. Fletcher Moulton, is the foremost patent lawyer of England, a member of the Imperial Parliament, and an intimate personal friend there of Hon. Edward Blake.

Richard Moulton is a Cambridge man, who made a name for himself a quarter of a century ago as the first and greatest of successful university extension lectures. His subjects were Milton, Shakespeare, and Goethe and kindred masters of literature, and his treatment of his authors was at once so popular and so profound that persons of all classes and every sort of education, from the honor graduates of universities to the members of mechanics' institutes, found something to take away, and competed with one another in the weekly examination papers, which it was part of his system to exact. The academic cynics and wit, who delighted to launch academic scoffs at extension work, found nothing more damaging to say of his work than is implied in the familiar sobriquet, by which he has since been known, of the "molten idol," not a bad form of idolatry.

The amazing success of Mr. Moulton in England attracted the attention of the American universities. He was invited to Philadelphia in 1880, received his doctor's degree from the University of Pennsylvania, and was afterwards appointed Professor of English Literature in the extension course of the University of Chicago. There he has labored for several years, generally engaged in touring the middle west, lecturing in a different centre each evening, and sleeping four nights in the week on the trains, an appalling programme to an apostle of less magnetism and less devotion to his mission. That he may not break down physically "in journeyings often in perils of porters, in perils of robbers, in perils of his own students, in perils by the heathen, in perils in the city, in perils in the wildernesses, in perils among academic

brethren," Chicago graciously bestows upon him at intervals comparative rest for a year, when he lectures within the walls of the university proper, like an ordinary professor. But, after all, to most people in Canada, Dr. Moulton is known, not as the brilliant extension lecturer and the liver of the strenuous life, but as the exponent of the most popular classics; as the editor of "The Modern Reader's Bible," as the author of "The Ancient Classical Drama," and of "Studies of Shakespeare." These books have gone everywhere, and are going everywhere, and rest as little as their author.

On the afternoon of Jan. 23rd, at Wycliffe Convocation Hall, Dr. Moulton lectured before the University of Toronto on "The Bible as Literature." On Sunday morning at 11 o'clock in the same place Dr. Moulton delivered what he calls "An interpretative recital" of the Book of Job. This is one of the college sermon series, and was intended primarily for undergraduates of the various colleges, though hitherto there has generally been room for a few persons not included in that category who come in good time. No such restriction, however, applied to the evening service, when Dr. Armstrong Black placed St. Andrew's pulpit at Mr. Moulton's disposal. His programme was "An Interpretative Recital of the Revelation of St. John the Divine."

DR. C. A. HODGETTS, THE NEW SECRETARY OF THE PROVINCIAL BOARD OF HEALTH.

An order-in-council was passed on January 29th, appointing Dr. C. A. Hodgetts, M.D., L.R.C.P. (Lond.), to the position of Secretary of the Provincial Board of Health and Deputy Registrar-General for Ontario to fill the vacancy caused by the resignation of Dr. P. H. Bryce, who has accepted the position of Medical Inspector of Immigration and of the Department of Indian Affairs for the Dominion Government. Dr. Hodgetts has filled the position of Inspector for the Provincial Board of Health since 1896 and received a permanent appointment of medical inspector three years ago. We understand that it is not the intention of the Government to fill the position of medical inspector, as the present satisfactory conditions of the Province are such as to permit Dr. Hodgetts to perform the duties of both positions.

Dr. Hodgetts is the third son of the late George Hodgetts, of Toronto, who was one of the founders of the Ontario College of Pharmacy, and for many years its registrar. He was born in 1859 and received his early education at the Provincial Model School, where he secured the first Dufferin silver medal for general proficiency. He graduated from the Ontario College of

Pharmacy with honors in 1878. He studied medicine while engaged in business as a pharmaceutical chemist and graduated from the Toronto School of Medicine in 1886, taking the degree of M.D.C.M. at Victoria University. He was for a time a house surgeon at the General Hospital, after which he studied for three years in England at the London and Birmingham Hospitals and at Stafford Infirmary. During this three years he obtained his degree of L.R.C.P. (Lond.). Soon after his return to Toronto he was appointed to take charge of an outbreak of diphtheria in the Nipissing District, after which he took up general practice.



C. A. HODGETTS, M.D.,

New Secretary of the Ontario Provincial Board of Health.

In the fall of 1890 he was sent to Pelee Island to suppress a smallpox outbreak. Since then he has been in charge of the suppression of all the serious outbreaks of contagious diseases in Ontario, the chief one being the smallpox outbreak at Sudbury in 1901, which continued for five months.

Dr. Hodgetts was for a time connected with No. 4 Bearer Company, under Major Fotheringham. He now holds the rank of captain. During the South African war he acted as honorary secretary to the Canadian Red Cross Society, for which he re-

ceived the reward of being made an honorary associate of the Order of Saint John of Jerusalem, England. He entered upon his new duties at once. Dr. Bryce assumed his new duties at Ottawa on February 5th.

ITEMS OF INTEREST.

Presentation to Dr. Bryce.—An interesting session of the Provincial Board of Health was held on February 3rd, when Dr. Bryce, who left next day to accept the position of Dominion Health Inspector at Ottawa, was made the recipient of a handsome grandfather's clock. The presentation was made by Dr. Kitchen, of St. George, Chairman of the Board, who, in his remarks, laid stress upon the efficiency of the retiring secretary as an officer, and his kindly nature as a man. Dr. Bryce, in accepting the gift, expressed his gratitude in a feeling manner.

The Merging of Two Medical Journals.—Messrs. E. B. Treat & Co., the publishers of the *International Medical Magazine* and *Archives of Pediatrics*, have concluded to merge the two journals. During the five years that Dr. Boardman Reed had charge of the *International Medical Magazine* it was his constant aim to have the periodical of the highest character, readable and reliable. The publishers regret that they must discontinue the *Magazine*, and extend to Dr. Reed their appreciation of his editorial labors. It is hoped that the friends of the *International Medical Magazine* will continue their interest by reading *Archives of Pediatrics*, and thus extend its field of usefulness.

Play.—Dr. Woods Hutchinson, in the September *Contemporary Review*, makes a plea for "Play as an education," ingeniously representing that the infant, in its overmastering desire to put everything in its mouth, is really the modern representative of the ancient cave-dweller, and that, as it grows older, it passes rapidly through the later stages in the history of the race. In play, Dr. Hutchinson finds the factor which secures man his place in nature. He outlines a plan for school playgrounds, saying that every school should have a playground containing ten square yards for each pupil in attendance, and that they should have great freedom, and should be under the supervision of a play-mistress, who should act as a "moderator."

Medical Practices for Sale.—When a physician desires to sell his practice and property, it is of first importance that it should be done with as little publicity as possible; hence the purchase and sale of medical practices forms an important department of medical affairs, and one that nearly all physicians find necessary to

use at some time or other. Appreciating the needs of the profession in this line, Dr. Hamill has for ten years been perfecting a system which we consider almost faultless as to efficiency, promptness, and secrecy, and we cordially recommend Dr. Hamill as an expert in this line and advise our readers to take advantage of his ripe experience when they think of selling out their practices. See list of practices for sale by Dr. Hamill among our advertising pages.

A President Whose Work is Appreciated.—The January, 1904, issue of *El Boletín Comercial*, published by the Latin American and Foreign Trade Association of St. Louis, Mo., contains the following paragraph: "With sincere pleasure we present to our readers the portrait of the new President of this Association. Mr. Cramer is Vice-President of the famous firm of G. Cramer Dry Plate Co., of this city, whose products are well known in many parts of the world, and whose reputation ranks ahead of all other firms in its line. Great success has crowned the efforts of this firm, to which happy results the subject of this sketch has contributed in a large measure. Mr. Cramer has travelled extensively in Mexico and Cuba, and undoubtedly his many friends in those countries will observe with much pleasure the distinguished honor which has been conferred upon him by electing him President of this famous organization, an honor which he justly merits. This association is proud of its new president, and we predict all kinds of prosperity during his administration."

Portrait for Toronto University.—The portrait of Dr. Goldwin Smith, presented to the library of Toronto University by Mr. John Ross Robertson, was unveiled recently before a large number of the friends of the university and Dr. Goldwin Smith. Rev. Professor Clark, of Trinity College, who represented Mr. Robertson, who is *en route* to Egypt, spoke briefly of Mr. Robertson's public spirit and admiration of the subject of the portrait, and of Dr. Goldwin Smith's prominence in the intellectual world and of his value as a citizen of Toronto. President London accepted the portrait on behalf of the University, and in eulogium of Dr. Smith spoke of him as the greatest living authority on academic policy. Dr. Goldwin Smith spoke briefly, his speech being largely reminiscent. He referred to the cordial relations that existed between Mr. Robertson and himself. A man never changes his country after he is forty, therefore he was still an Englishman, but he earnestly tried to be a good Canadian citizen. There must always be conflicts of opinion between those who take independent views. There were those who believed in Imperialism, while he believed in building up a series of independent nations, aiding each other in reaching a higher standard of civilization. Others might believe in Empire, he believed in humanity.

The Physician's Library.

BOOK REVIEWS.

A Text-Book of Legal Medicine and Toxicology. Edited by FREDERICK PETERSON, M.D., Chief of Clinic, Nervous Department of the College of Physicians and Surgeons, New York; and Walter S. Haines, M.D., Professor of Chemistry, Pharmacy and Toxicology, Rush Medical College, in affiliation with the University of Chicago. Two imperial octavo volumes of about 750 pages each, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Company. 1903. Canadian agents: J. A. Carveth & Co., Limited, 413 Parliament St., Toronto. Per volume, cloth, \$5 net; sheep or half morocco, \$6 net.

We had the satisfaction of reviewing, a month or two ago, Vol. I. of Peterson and Haines' "Text-Book of Legal Medicine and Toxicology," and now beg to express our humble opinion of Vol. II., just out.

We find that, among the contributors to Vol. II., such names appear as Dr. H. N. Moyer, of Chicago; Dr. J. H. Salisbury, of Chicago; Dr. E. S. Wood, of Boston; Dr. Chas. Harrington, of Harvard Medical School; Dr. Reid Hunt, of Baltimore; Dr. W. A. N. Dorland, of Philadelphia; Dr. W. T. Belfield, of Chicago; and Dr. Marshall D. Ewell, Professor of Medical Jurisprudence, University of Michigan.

Vol. II. consists of two parts: the first 200 pages being devoted to such subjects as Malingering, Legal Aspects of Pregnancy, Legitimacy, Abortion, Infanticide, Impotency, Sterility, Rape, Marriage and Divorce, Malpractice, Medical Legal Relations of the Roentgen or X-Rays, and Laws Relating to the Insane; the balance of the 800 pages deals with Toxicology, *e.g.*, Inorganic, Alkaloidal and Non-Alkaloidal Organic Poisons, Gaseous Poisons, Food-Poisoning, Ptomain, the Post-Mortem, Imbibition of Poisons, and the Medico-Legal Examination of Blood and Seminal Stains.

One of the most interesting chapters is that which deals with the medico-legal relation of the X-rays, written by Harold N. Moyer, of Chicago. This is something which is deeply interesting, owing to the fact that during the past few years many actions

at law, involving possible heavy damages, have been entered, owing to serious injury from too lengthy exposure to the X-rays. We think that we will be advising in the right direction when we say that, if only for the information contained in this one chapter, it will be found worth while to purchase both volumes. Under the section given over to "Laws Relating to the Insane," the author deals separately with the statutes of all the States and Territories and the District of Columbia as to the commitment, care and custody of the insane. The statutes, of New York are given in full, it being the only State in the Union to adopt a uniform system of State care for its dependent insane, and to assume the entire financial cost thereof.

The author devotes ten pages or so to considering "Death from Grounded Glass and other Mechanical Irritants," a subject which becomes important owing to glass having been figured in more than one case of comparatively recent date.

Victor C. Vaughan's contribution of fourteen pages on "The Post-Mortem Imbibition of Poisons" is interesting and instructive.

Those who have in their library a copy of Peterson & Haines' "Text-Book of Legal Medicine," possess a work that gives them the most recent views on medical jurisprudence in all its phases, and need not be afraid to quote the source of their information.

W. A. Y.

Essentials of Pelvic Diagnosis, with Illustrative Cases. By E. STANMORE BISHOP, F.R.C.S. (Eng.), Author of "Uterine Fibromyomata, Their Pathology, Diagnosis and Treatment;" Hon. Surgeon, Ancoats Hospital, Manchester; Vice-President, British Gynecological Society, London; ex-President Clinical Society, Manchester, etc.; and an Appendix on Examination of Blood, etc., by Chas. H. Melland M.D. (Lond.), M.R.C.P., Hon. Physician, Ancoats Hospital, Manchester; Platt Physiological Scholar, etc. New York: Wm. Wood & Co. 1903. Canadian agents: Chandler & Massey Limited, Toronto, Montreal and Winnipeg.

Can diagnosis be learned from a book? As a general thing, No, and yet this book being planned practically upon a new system would lead us to think—and I have no doubt correctly, too—that it is possible to learn the diagnosis of many, if not all, abdominal conditions if we follow the instructions herein contained. Diagnosis is supposed to be taught by most writers on the inductive principle. They start out with a description of a known disease, giving all the symptoms in detail. The symptoms in many diseases, however, differ but slightly, and the writer goes on to show how in his mind these do differ, but our mind is perhaps not his mind. He thoroughly understands the subject about which

he is writing, and has a store of experience and practice to draw from, of which the reader knows nothing. His sense of touch has been educated. The reader probably has no educated touch, and neither experience nor practice to help him. He must discover the disease by reason. To him the symptoms are known; they are the realities, but the disease is not known. That has to be deduced by reasoning.

The writer of this book fully appreciates all this, and so instead of naming a disease and describing the symptoms of it afterwards, he takes a certain lot of symptoms and massing them together, names the disease. His book is divided into four parts. In the first part he goes very minutely into everything connected with the examination of the abdomen, nothing that is of any importance being omitted; the value of an educated touch, and how to gain it; the proper position of the body when examination of its different parts is undertaken; the use of instruments as a means of diagnosis, with a chapter on "Pain as a Factor in the Diagnosis of Abdomino-Pelvic Disease."

The strong part of this book is contained in its second and following parts. In the second part, the lines of diagnosis are laid down, and in the third part these are arranged in diagnostic tables. To illustrate what is meant by lines of diagnosis, it will be necessary to give an example from the book itself.

A comparatively superficial swelling is discovered in the abdomen. If it is found to float over the deeper contents of the abdomen, bulge forward when the patient attempts unassisted to rise from the dorsal to the sitting position, it is probably in the abdominal wall. This being further proven to be the case, if it has certain peculiarities and a certain history, it is probably a fibroma of the abdominal wall. If its peculiarities are of another character and history, it is lipoma. In this way it would seem that every diseased condition or form of growth occurring in the abdomen may be definitely diagnosed. The tables in the third part contain all this information tabulated in such a way that it is very easy of reference, but of course like all other tables, more difficult to learn, unless the reader had some practical knowledge of the subject.

Part IV. is composed of illustrative cases. These are very interesting. Some of them read like beautifully arranged clinical conundrums. They have to be read to be thoroughly appreciated, and very few will read them without feeling how well they have been put together.

The book closes with an appendix which is devoted to an examination of the blood, tubercle bacilli, and gonococci. The procedure connected with these examinations is given in concise and easily followed shape, the whole being illustrated by eight plates,

all of an excellent character. This book must be read to be appreciated. To the student and the practitioner alike, the book will be undoubtedly useful. It is of use to know beforehand some of the things that we want to observe, and after observation, a reminder of what we have discovered is often very useful also.

A. J. J.

Morrow on Social Diseases. The Relation of Social Diseases and Marriage. By PRINCE A. MORROW, A.M., M.D., Emeritus Professor of Genito-Urinary Diseases in the University and Bellevue Hospital Medical College; Surgeon to the City Hospital; Consulting Dermatologist to St. Vincent's Hospital, etc., New York. In one octavo volume of 390 pages. Cloth, \$3.00 net. New York and Philadelphia: Lea Brothers & Co., Publishers. 1904.

As far as we are aware, there is no modern work of any magnitude in existence in this country which treats of social diseases, a subject which must come under the daily notice of the general practitioner, and which of necessity involves the use of the greatest possible tact on his part, not to speak of delicate feeling. Since Fournier's volume, "Syphilis and Marriage," came out almost a quarter of a century ago, nothing of any moment has been written dealing with this department of the earnest physician's duty, so that Dr. Morrow may be said to have filled a vacancy when he recently presented to the profession the book under review.

The introduction of venereal disease into marriage is fraught with such terrible results, that may affect not only the parent, but the future offspring, as to become nothing short of a social problem, and who is better fitted to deal with such an embarrassing topic than the trusted family physician, a man who, at least should be, of such honor that no matter what it may involve, he would treat anything told him professionally as being nothing less than sacred.

Dr. Morrow's book takes up not only the dangers of the introduction of disease into marriage, and the results of the same, through irradiation into family and social life, but dissemination. As the author says, "the fulfilment of this duty realises the highest ideals of preventive medicine." Such a duty is surrounded with a maze of difficulties, and it will be found that, in order to reach the proper exit from this network, the medical man will have to not only make a study of human nature, but call into use a form of wisdom that is not taught in the medical school or university. The author points out what should form the basis of his conduct under many very difficult conditions, and lays down what he considers to be the proper directions to lead him to a successful issue.

Modern Surgery: General and Operative. By JOHN CHALMERS DaCOSTA, M.D., Professor of the Principles of Surgery and of Clinical Surgery in the Jefferson Medical College, Philadelphia. Handsome octavo volume of 1099 pages, with over 700 illustrations, some in colors. Fourth edition, greatly enlarged and entirely reset. Philadelphia, New York and London: W. B. Saunders & Co. 1903. Canadian agents: J. A. Carveth & Co., Limited, Toronto.

In this fourth edition of Professor DaCosta's work one observes a conscientious effort to bring the work up to the standard of the most recent improvements, discoveries and developments in surgery. The whole book shows evidences of a thorough overhauling of previous editions with a view to the elimination of obsolete views and practices, and to the introduction of everything that is new and practical in recent surgery. The chapter on X-rays is treated almost entirely from the point of view of diagnosis in relation to fractures and location of foreign bodies, and one is gratified to observe that no extravagant claims are made for the curative effect of the X-rays in malignant disease. One of the greatest evils resulting from an ill-founded hope in the cure of disease by methods other than the use of the "knife" is, that patients are disposed to seek relief by means of the less repulsive method, and thus squander valuable time, so that when they, in despair, ultimately resort to the surgeon, their condition is beyond hope. It is to be feared also that sometimes specialists in this line are apt to give the patient a prognosis altogether too reassuring.

One is gratified also to see Kocher's method of reduction of dislocation of the shoulder given fully and illustrated by figures which represent the method adequately. It has taken a long time for this method of treatment of a very common injury to obtain recognition among writers on surgery, and it certainly is beyond the shadow of doubt a perfectly adequate form of treatment for nearly all forms of this condition. In illustrations of the deformities in dislocation of the hip, Professor DaCosta has wisely, we think, contented himself with the old, but very graphic, characteristic illustrations given by Sir Astley Cooper. Nothing could better illustrate the deformities, and it is a graceful way to perpetuate the memory of this great surgeon.

If one might venture a criticism of the work, it would seem to the writer that there is a lack of just proportion in devoting some thirty pages to ligation of individual arteries, and in disposing of the treatment of rupture of the bladder in three lines—comprehensive, it is true, but adequate. One could also wish to see obliterated forever from works on surgery such illustrations as that in Fig. 74, in which the use of harelip pins is demonstrated. These instruments of torture may have had their use in pre-antiseptic days, but they certainly have been responsible for untold numbers of hideous, centipede-like scars which one sees in many old cases

of harelip operations. Certainly it is unusual in modern days to advocate their use.

On the whole, however, after a pretty careful revision of the work, it would seem to be one which it is perfectly safe to recommend, not merely for the use of students, but also for the use of those who may be engaged in extensive surgical practice.

G. A. P.

The (London) Medical Review. An Indexed and Illustrated Monthly Record of all that is Important to the Practitioner in the Medical Periodicals of the World. Printed in large clear type, on art paper. Subscription, £1 per annum, post free to any part of the world.

By the careful use of words and the suppression of all unessential matter, an article written with any definite object—and such alone is valuable—can be compressed into a comparatively brief report, and yet give a complete, readable, and satisfactory account of the subject, so that nothing of importance is lost, and often, in lucidity, much is gained. In this manner, and in a clearer and more concise form than has hitherto been attempted, *The Review* endeavors to summarise all that is really important to the practitioner in the medical periodicals of the world, giving him proved facts and definite teaching which bear upon his daily work, instead of vague, contradictory, and ephemeral theories on subjects of no practical importance.

What are now required in medicine, and what make for progress, are not elaborate papers, which contain no new information, but new or not generally recognized important facts. In systematically recording these, and not mere opinions, the *Review* differs from all other journals, epitomes, and year books. In another respect, also, it is a new departure. The articles are not presented merely as isolated contributions; they are collated with one another, so that, as far as possible, medical progress is presented as an organized whole.

The indexing is a special feature of the *Review*. Each month a subject index of the contents is given, which is not merely a means of reference to the text, but a statement of all the important facts therein, *i.e.* it is analytical. With each annual volume is issued an index which supersedes the monthly indexes and is constructed according to a definite homogeneous system. This facilitates the use of the volume as a permanent work of reference and indispensable supplement to the text-books.

All communications to be addressed to the manager. Cheques and Postal Orders should be made payable to *The Medical Review*, and crossed "The National Provincial Bank of England, Limited."

Clinical Studies. A Quarterly Journal of Clinical Medicine, By BYROM BRAMWELL, M.D., F.R.C.P.E., F.R.S.E., Physician to the Edinburgh Royal Infirmary, Lecturer on Clinical Medicine in the School of the Royal Colleges, Edinburgh, etc. Printed and published by R. & R. Clark, Limited, Edinburgh, Price, eight shillings, post free to all parts of the world.

The new series of this very excellent quarterly appeared for the first time, October 1st, 1902, and has appeared regularly since that date. Under the able editorship of Dr. Byrom Bramwell, of Edinburgh, the success of the publication is assured. The January (1904) number came to hand recently and contains nearly 100 pages of very excellent material. The regular clinical lecture formed the leading article, the subject being "A Case of Mitral Stenosis with Hemiplegia." The following 64 pages are devoted to nine clinical cases and their consideration, as follows: Epilepsy due to Cerebral Syphilis; Acute Croupous Pneumonia, Peripheral (alcoholic?) Neuritis; Pretaxic Tabes, Addison's Disease, Mitral Disease latent for thirty-five years, Epilepsy with Motor Aura; Tabes. with Optic Atrophy; Chronic Consolidation of the Lung, with marked improvement under open-air treatment; Tumour of the Liver and Neurotic Vomiting. Two other articles follow, one a lecture entitled "The Treatment of Intra-Cerebral Hemorrhage," and the other bearing the title, "The Treatment of Addison's Disease." Any Canadian physician desiring to subscribe for a journal which gives the best of the material coming into the wards of the Royal Infirmary, Edinburgh, had better subscribe for "Clinical Studies."

The Self-Cure of Consumption without Medicine. With a chapter on the Prevention of Consumption and Other Diseases. By CHAS. H. STANLEY DAVIS, M.D., Ph.D., Member of the Connecticut State Medical Society; Physician to the Curtis Home for Old Ladies and Children; Author of "The Training and Education of Feeble-Minded, Imbecile and Idiotic Children," etc. New York: E. B. Treat & Company, 241-243 West Twenty-Third Street. 1904. Price 75c.

The author takes the stand that medicines are useless in pulmonary tuberculosis, and that many cases can be cured by fresh air and good food alone. The book is very readable and interesting, but we hardly know to whom we should recommend it.

A self-cure is hardly in the line of the physician's work, and we are quite satisfied it is not safe for a patient to judge his own case, and be guided by any self-cure.

The work deals with foods, and gives the diet lists of the Massachusetts Sanatorium at Rutland, and the Hospital for Con-

sumptives at Blackwell's Island. The book is well worth a perusal by those interested in consumption, but we fear the red-faced, robust Irishman will hardly agree with the author when he says: "It would be a blessing to the race if potatoes were banished from the planet and the more easily-digested rice substituted." Nor do we think our hardy lumbermen in the backwoods will agree with the quotation adopted from Dr. Kellogg, in which he says: "Hogs are very prone to tuberculosis, and that a slice of fat pork is concentrated, consolidated filth.

W. J. W.

A Compound of Pathology, General and Special. A Student's Manual in One Volume. By ALFRED EDWARD THAYER, M.D., Professor of Pathology, University of Texas. Second Edition, containing 131 illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1903. Canadian Agents: Chandler & Massey Limited, Toronto, Montreal and Winnipeg.

An abridgment such as this work is, containing reliable statements and facts, with the latest recognized theories and practical methods, will be invaluable to the student of pathology of to-day.

The author has amalgamated two compends of a former edition with this one of 692 pages, and has added a chapter on the nervous system and many fresh illustrations. The chapter on "Methods," containing a capital description of how a post-mortem examination, from beginning to end, should be conducted, will be found exceedingly useful.

The "get up" of the book is really unique as compared with medical works generally, being handsomely bound in the best loose leather style, and opens like a book should. We congratulate the publishers.

W. H. P.

A Practical Treatise on Smallpox. Illustrated by Colored Photographs from Life. By GEO. HENRY FOX, A.M., M.D., Consulting Dermatologist to the Health Department of New York City, with the collaboration of S. D. Hubbard, M.D., S. Politzer, M.D., and J. H. Huddleston, M.D. In two parts. Philadelphia and London: J. B. Lippincott Company. 1902.

It does not fall to the lot of many to have the opportunity of studying smallpox in its different phases, and at its several stages, in life, so that the question of diagnosis depends largely upon the study of variola from plates. After studying those in Dr. Fox's two volumes, we do not hesitate to say that every general practitioner should expend the necessary amount to purchase the work, the plates being so excellent, so delicately tinted, and so true to life, that they are almost as valuable for diagnostic purposes as

the cases themselves could be. They are, in reality, works of art, and the firm of J. B. Lippincott & Co. are deserving of congratulation for their part of the work, and have proved that they turn out the very highest-class printing and lithography. The Canadian agent, from whom all the books of this firm can be obtained, is Chas. B. Roberts, Montreal.

A *Manual of Medicine*. Edited by W. H. ALLCHIN, M.D. (Lond.), F.R.C.P., F.R.S. (Edin.), Senior Physician and Lecturer on Clinical Medicine, Westminster Hospital; Examiner in Medicine in the University of London, and to the Medical Department of the Royal Navy. Volume II.—General Diseases Continued; Diseases Caused by Parasites, Diseases Determined by Poisons Introduced into the Body, Primary Perversions of General Nutrition, Diseases of the Blood. London: Macmillan & Co., Limited. New York: The Macmillan Company. 1900.

Through some mistake Volume II., a continuation on general disease, did not come to hand till this month, although Vols. I., III., IV., and, lately, V., were previously reviewed. We are always pleased to receive this work. The articles are short and to the point. They give you all you want on the subject, without tiresome reading. The work is thoroughly up-to-date, and we can with confidence recommend it to our friends. W. J. W.

Facetiae Medicorum. The wit and humor of medicine in prose, poem and picture, gleaned from various sources and selected and reprinted from the files of "The Doctor's Factotum." Yonkers, N.Y.: The N. Y. Pharmaceutical Association.

This is worth sending for, and any physician enclosing his card to the publishers at Yonkers, N.Y., can receive a copy of "Facetiae Medicorum." It will while away a pleasant hour on a winter's evening and cause many a healthy, hearty laugh.

Handsome Booklets on Antitoxin and Vaccine.—The firm of H. K. Mulford & Co. of Philadelphia, Pa., have recently issued exceedingly handsome booklets setting forth in full detail the manufacture of their different Serums from start to finish. The firm have certainly spared no expense in the work, and it will repay any physician to send for copies, which will be furnished him on application by remitting his professional card.

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Original Contributions.

THE BALTIMORE TUBERCULOSIS EXPOSITION.

BY J. H. ELLIOTT, M.B.,

Physician-in-Charge, Muskoka Cottage Sanatorium, Gravenhurst, Ont.

ONE of the most successful efforts thus far made to popularize the present scientific crusade against tuberculosis was that made in Baltimore during the week of January 25th, under the above name, the result of the combined actions of the Tuberculosis Commission of Maryland, the State Board of Health, and the Maryland Public Health Association. It was "An objective presentation to the people of Maryland of the history, distribution, varieties, causes, cost, prevention and cure of tuberculosis." The presentation was a most exhaustive one, with every phase of the study well represented, and by such graphic methods as to show the important features of each department at a glance, and in such a way as to leave a lasting impression.

Each evening lectures were given by some of the most prominent men in America dealing with some aspect of the tuberculosis problem, arousing public interest to such an extent that McCoy Hall was utterly inadequate to accommodate those who came from day to day. The attendance increased until on Saturday it was estimated that between 6,000 and 7,000 people passed through the hall during the day. On this account the Exposition, which was only to have lasted one week, was kept open three days longer.

To write any detailed account of the exhibits would require a volume, for one day was quite insufficient to even get a fair idea of the details, while several days could be well spent in a thorough study of all that had been collected. As an example, one only need mention the cases containing the literature on tuberculosis collected by Dr. Osler, from Hippocrates and Celsus to the present day, every volume of which was intensely interesting. Thou-

sands of square feet of wall space were covered by the various charts and statistical tables, showing the prevalence of tuberculosis, its comparative mortality, its incidence in various trades and professions, the economic aspects of the disease, its foothold in tenements, and the work being done there, photographs, elevations, and floor plans of various sanatoria, studies of the results of sanatorium treatment, models of various buildings, especially tents, the various means used to prevent dissemination of the disease, and the various articles for the patient's comfort while following an out-of-door life in all climates and all weathers. Some of the most striking charts seen on entering the hall were those prepared by Dr. Fulton and Dr. Price, of Baltimore "Sputistics." These charts forcibly impressed the people with the utter disregard of their antisputting ordinance. To quote one will be sufficient, the following appearing under a photograph of the new Court-House:

Court-House Sputistics.—In nine walks around the Court-House on nine different days between the hours of 10 a.m. and 2 p.m. there were counted: Separate deposits of sputum, 3,793; highest count, December 31st, 1903, 560; lowest count, December 26th, 1903 (a bitter cold day), 235. Average, 421.5. Filthiest spot, St. Paul St. entrance. In the second degree disgusting, Calvert Street entrance. Only fresh deposits of sputa were counted. The dried up tobacco juice, with which the pavements of Baltimore were bespattered, were passed over. And these findings in face of the fact that the police headquarters are in the Court-House.

Similar tables showed the conditions existing about other public buildings and in the street cars, where the observations showed that the conductors and motormen were amongst the greatest violators of the antisputting by-laws.

A large collection of charts showed the incidence of the disease in various occupations; another series, the relation of tuberculosis to life insurance; another the percentage of cures and arrests in the German sanatoria; others the after histories of discharged patients. At the Friederichsheim Sanatorium, of 541 patients (in all stages) discharged in 1900, there were (in 1903) 164 fully able, 100 partly able, 60 unable, 161 dead, 11 untraced, 45 returned for treatment.

Results in the various stages as follows:

	1st Stage	2nd Stage	3rd Stage
Fully able.....	112	88	64
Partly.....	10	13	37
Dead.....	5	18	138
Untraced.....	4	4	3
Returned for second treatment..	17	18	10
Total	148	141	252

The photographs of the tenement houses, sweat shops, etc., of New York and Baltimore, showed the terrible conditions there prevalent, and in conjunction with this the work being done to alleviate these conditions, and the organization of the Visiting Nurses' Associations to care for the patients at their homes, furnishing them with sputum flasks, literature, bedding and good food, all impressed one with the possibilities of the treatment of the consumptive, under the most adverse conditions, with proper organization, willing self-sacrificing workers and sufficient funds to secure the necessities for each patient. The exhibit of the New York Board of Health showed a most complete collection of all the forms used by them in reporting cases of tuberculosis, following these up, and the disinfection of houses after removal or death, the forms and mailing boxes for pathological specimens, and all pertaining to the excellent work of their department, which has made such enormous advances in the municipal control of these cases. Dr. A. J. Richer, of Montreal, presented a most interesting collection of various city ordinances, antisputting laws, notification of cases, and of various reports and publications.

To one interested in Sanatorium work, nothing in the whole Exposition was more attractive than a framed picture, exhibited by Dr. S. A. Knopf, of New York, amongst a large collection of photographs of foreign sanatoria and tuberculosis literature—one which will attract more and more attention as modern methods of combatting this disease are better recognized, bearing this inscription, "The Three Pioneers of Sanatorium Treatment." The photographs and autographs of Brehmer, Dettweiler, and Trudeau. The pathological exhibit occupied a small room apart from the main exhibit. This was particularly the domain of the physician and student, though the public paid a great deal of attention to it, showing especial interest in the microscopic preparations of bacilli, and in the large collections of cultures. On the tables were specimens of tuberculosis of all organs, in all stages of the disease, as well as specimens showing healed lesions, a splendid museum of tuberculosis. The Bacteriological Exhibit contained contributions from de Schweinitz, Ravenel and Trudeau. The list of the Saranac specimens will give an idea how complete it was: (1) Crude tuberculin, Koch; (2) tubercle bacilli dried; (3) tubercle bacilli—extracted in preparation of tuberculin; (4) pulverized bacilli—extracted; (5*a*) crude wax—extracted from tubercle bacilli. (5*b*) purified wax—extracted from tubercle bacilli; (6) emulsion of tubercle bacilli for agglutination test; (7) Precipitated tuberculin; (8) pulverized tubercle bacilli—wax extracted; (9) glycogen—extracted from tubercle bacilli (Levene); (10) pigment from tubercle bacilli—in alcohol; (11) tuberculinic acid—from tuberculin bacilli (Levene); (12) copper

salt of tuberculinic acid (Levene); (13) bacillus tuberculosis hominis, non-virulent, direct descendant of Koch's original culture, 1882; (14) bacillus tuberculosis hominis, non-virulent on broth, isolated 1892; (15) bacillus tub. hom.—virulent culture on agar from sputum; (16) bacillus tub. hom.—virulent culture on sheep serum; (17) bacillus tub., bovis—virulent culture on sheep serum.

In the Department of Sanatoria there was a very extensive collection of photographs, elevations, floor plans and models of many of the institutions of North America, particularly those of the North Eastern States. A large space was devoted to models of the various tents used in different parts of the country in carrying out the fresh-air treatment, varying to suit local climatic conditions.

My own presence at the Exposition was due to an invitation to make an exhibit of the institutions and work of the National Sanitarium Association in Canada. With the assistance of Dr. C. D. Parfitt, a very creditable exhibit was prepared of the two Muskoka institutions—the Muskoka Cottage Sanatorium and the Muskoka Free Hospital for Consumptives; and much interest was evinced by the visitors to the Exposition, most of whom had no adequate idea of the work this association is carrying on in Canada. During the past six years over 1,000 cases have been treated in these two sanatoria, and the results of treatment, and the charts showing the present condition of patients discharged proved very interesting to all who saw them. In addition to charts and diagrams showing economic data, climatological data, results, etc., there was a large collection of photographs, blue prints of floor plans, bills of fare, record blanks, reports, etc., models of interior structure, sputum flasks, and a model to scale of the roofed tent now extensively in use, suitable for both winter and summer occupation. The success which has attended the efforts of the National Sanitarium Association in their work was a matter of constant congratulation, and those who previously had but little conception of the magnitude of its work seemed pleased to learn that Canada is so far ahead of many of the leading States of the Union in this regard. There are now available in the two sanatoria of the association in Muskoka, seventy-five beds for paying patients, and fifty for poor patients, all of which are occupied, and it is hoped that appeals at present being made to the public will allow of the addition of twenty-five more free beds, making in all 150 beds.

The addresses made each evening by men who are moulding scientific and public opinion in the anti-tuberculosis crusade, were full of interest, and touched upon almost every aspect of the problem. To attempt any *resumé* is out of the question; most of

the addresses will, moreover, appear in print, and will thus be available. The week's programme was as follows: Monday, January 25th—Formal opening by His Excellency Edwin Warfield, Governor of Maryland; Hon. Robt. McLane, Mayor of Baltimore; Dr. Wm. Osler—Address; Mr. Frederick Hoffman—"The Statistical Laws of Tuberculosis." Tuesday—Dr. Lawrence F. Flick, of Philadelphia—"House Infection in Tuberculosis." Wednesday—Dr. Mazyek P. Ravenel, of Philadelphia—"Bovine Tuberculosis, a Factor in Human Tuberculosis"; Dr. D. E. Salmon, of Washington—"Some Observations in the Tuberculin of Animals." Thursday—Dr. S. A. Knopf, of New York—"Pulmonary Consumption and the Possibilities of Its Eradication through the Combined Action of a Wise Government, Well-Trained Physicians and an Intelligent People." Friday—Dr. George J. Adami, of Montreal—"Facts, Half-Truths, and the Truth about Tuberculosis." Saturday—Dr. Wm. H. Welch; afternoon, Dr. Chas. H. Porter—Lantern Demonstration; evening, Dr. Huber, New York—Lantern Demonstration. Monday—Dr. Wm. Osler—"The History of Tuberculosis."

The Exposition, both in attendance and enthusiasm, was a great success; far beyond the fondest hopes of its organizers, who deserve great credit for the work they did, particularly Dr. John S. Fulton, and Dr. Marshall L. Price, who practically lived in McCoy Hall during Exposition week, and were unremitting in their endeavors to have every visitor thoroughly understand the various exhibits. Dr. Thayer, Dr. Jacobs, Dr. Osler and Dr. Welch, amongst many others who should be mentioned, were most kind, and to them, with their associates, must be attributed the signal success of the Exposition.

All visitors to Baltimore are loud in their praises of the treatment accorded them there. Those who were in Baltimore during the week of January 25th are particularly so. For myself the whole week was full of pleasure and profit, and I much regret that more of our Canadian physicians had not the good fortune to be present. It is needless to say that I shall look forward with most pleasurable anticipation to my next visit to the city which possesses the Johns Hopkins University and Hospital, and trust that it may be in the very near future.

Let me also add as a postscript a suggestion that, though the jotting of these few notes has given me pleasure, the next time the editor of *THE CANADIAN JOURNAL OF MEDICINE AND SURGERY* visits such an important meeting as this was he should not make the excuse of urgent business in Washington, leaving the work of note-making to an interested and partizan individual.

Gravenhurst, February 9th, 1904.

NÆVUS LIPOMATODES.

BY A. PRIMROSE, M.B., C.M. (EDIN.), M.R.C.S. (ENG.)

Professor of Anatomy and Associate Professor of Clinical Surgery in the University of Toronto,
Surgeon to the Hospital for Sick Children, etc.

THE case which I here record is one of congenital tumor of a type somewhat unusual. The term "Nævus Lipomatodes" has been used by Hyde^{*} to describe conditions which appear to be similar to those found in my patient, and the term is a suitable

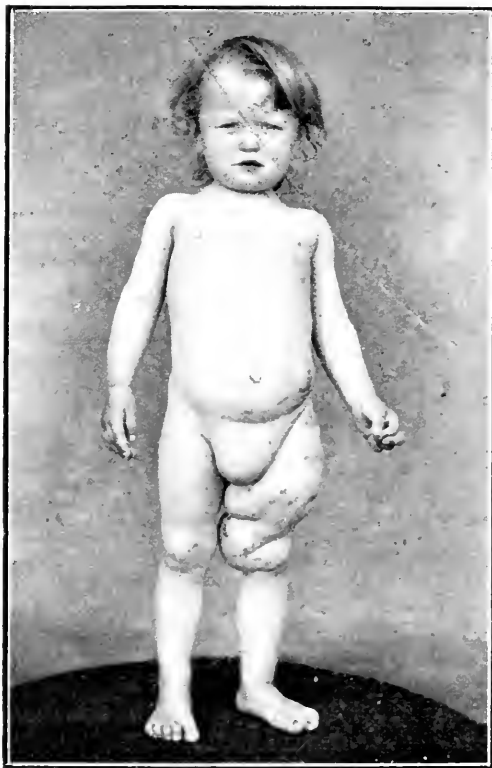


FIG. 1. Nævus Lipomatodes.
(Showing pigmentation.)

one, as the tissue of which the tumor is composed is made up largely of naevoid material and fat; it includes also, no doubt, a considerable amount of fibrous tissue. Under the title of "Nævus Pigmentosus," Hyde describes abnormal pigmentations of

^{*} "A Practical Treatise on Diseases of the Skin," Hyde and Montgomery, p. 461.

the skin, which vary in color from a light yellow or chocolate-brown to a blackish line, either single or multiple, and very numerous. "They vary in size from that of a pin head to that of tumors of large volume, and are either ovoid or circular in contour, or are so irregularly shaped as to present a fanciful resemblance to lower animals, whence the popular belief as to their origin from maternal impressions." Under this general classification of "Nævus Pigmentosus," Hyde includes the soft or firm



FIG. 2. Nævus Lipomatodes.
(View from the side.)

more or less elevated and projecting tumors, which he calls "Nævus Mullusciformis, or Lipomatodes."

The record of the case is as follows:

M. S., aet. 2 years. When the child was born she had an enlargement of the abdomen on the left side, the skin over it was extremely thin like parchment, and the movement of the bowel below it was said to have been quite visible. A second protrusion was noted too in the hypogastrium, and one on the inner aspect

of the left thigh. The one on the thigh has always been hard and firm, and dark pigmented spots were visible on the surface.

The family history throws no light on the etiology of the condition. There is no history of tuberculosis or syphilis. There is one other child in the family, a boy aged 4 years, healthy and well developed. The parts were said to have been inflamed for about six months after birth. They have been growing steadily since birth, but slowly, and the color of the surfaces has always



FIG. 3. Naevus Lipomatodes.
(View from behind.)

been the same. There has never been any discharge from the tumor.

At the level of the umbilicus and a little in front of the anterior axillary line, is a small subcutaneous, fairly hard tumor, and below it a more diffuse mass of a similar nature. The upper one is partly covered by a number of dark, hemorrhagic spots a little larger than a pin's head. The color resembles very much that of venous blood. Just below, on the more diffuse mass,

are a number of smaller spots, lighter in color, giving a more general hemorrhagic appearance. The first spots thus described were such as might have been produced by a recurrence of small thrombi producing a more or less beaded appearance along the course of certain superficial vessels. The second spots described, however, had less defined margins, and more closely resembled hemorrhages into the areolar tissue. In the pubic region is a soft tumor, more evident towards the left side; this is of considerable size, and was thought at one time to be a hernia, but it is obviously in the superficial part of the belly wall, and has no deep connections. There is no hemorrhagic appearance about it. On the inner, anterior and outer aspect of the upper two-thirds of the left thigh is a large mass which is soft on the inner side, but quite hard on the greater part of its anterior and outer surfaces. There is a somewhat diffuse area on its upper and outer parts approaching close to the tumor on the abdomen. The pigmented spots which exist in this area are smaller and less distinct than those on the abdomen, presenting a more diffuse appearance. Just below the inner part of this tumor, on the lower part of the inner side of the thigh, and on the inner side of the knee is another comparatively hard tumor, separated from the one above by a sulcus. It extends to the level of the lower margin of the patella. There is a small hemorrhagic area on the inner side of it similar to the one on the larger tumor above.

All the hard parts rest on a layer of soft tissue, which evidently forms a deeper part of the tumor growth. The consistence of the hard parts is very firm, resembling that of dense fibrous tissue, that of the soft parts has the consistence of fat. According to the father's statement, the consistence has always been such as it is at present.

UTERINE FIBRO-MYOMA WITH PYOSALPINX.

BY W. H. PEPLER, M.D., L.R.C.P. (LOND.), TORONTO.

Mrs. A. B., aged thirty-five years, came to me in November last, complaining of a steady, dull pain and tenderness in the right pelvic and iliac regions which had commenced the day before. She gave an unimportant family history. Had been pregnant twice; one full-term child stillborn fifteen years ago, labor natural, and one miscarriage at three months twelve years ago. She had enjoyed excellent health up to this time, when she began to suffer from a profuse leucorrhœa, accompanied by general malaise. It was then discovered that she had a fibroid of the uterus, removal of which was advised but refused. Patient's general condition soon improved, however, and she had no further ill effects from the growth until Aug., 1903, when a metrorrhagia and menorrhagia appeared, which have persisted up to the time she came to me. Her present attack came on suddenly with a dull pain, increased on movement, referred to the right pelvic and iliac regions; some elevation of temperature, about 100 degrees F.; pulse rate, 105. Examination of abdomen revealed a large, solid, globular mass, occupying the central portion of abdominal cavity from pubis up to 1 1-2 inches above umbilicus, quite movable, but tender over right and lower areas. Thinking that I had a large uterine fibroid, plus an inflammatory action occurring in one of its attachments, I advised rest counter-irritants, opiates, etc., hoping that the acute symptoms would subside, when I strongly urged operation, but my hopes were not to be realized, for her condition became more serious—temperature gradually rising to 103 and 104; pulse, 120 to 130; pain and tenderness increasing—while the patient herself became anxious. There had been no gastric symptoms, and the bowels had been relieved regularly throughout the acute attack. No signs of peritonitis present. Immediate operation was advised as the only hope of relief, and on November 10th, six days from the onset of the acute attack, an abdominal section was performed under chloroform, and the growth with uterus and all appendages removed. On separating the growth from its attachments on the right side, a long, thickened, inflamed mass with gangrenous end was found adherent to the posterior and right side of the tumor. This elongated mass was removed with the growth, every possible care being taken to prevent general sepsis. No difficulty arose during the operation. The appendix was found normal. Patient rallied from the operation, and remained in fair condition for thirty-six hours, when

symptoms of a general infection appeared, from which she rapidly sank.

The growth, with uterus and appendages, weighed twelve pounds, and was the size and shape of an eight months' pregnant uterus; it was interstitial, growing from the posterior wall just above the cervix; had involved the greater portion of the uterus and left appendages. The uterine canal was stretched, measuring 4 1-2 inches, but patulous. The utero-tubal openings could not be made out on either side. Attached to the right side of the fibroid, and somewhat posteriorly, was the right Fallopian tube, enormously thickened, elongated and measuring five inches, showing signs of intense acute inflammation; its canal was much dilated and contained a dark, grumous-looking fluid. Its uterine opening was obliterated. Its abdominal end was replaced by a large gangrenous mass the size of a walnut, no remains of the fimbriae or ovary could be made out. Microscopical examination of the growth revealed an ordinary myo-fibromatous tissue, non-cystic, composed of smooth muscle fibres, and fibrous tissue arranged in bundles and layers. No secondary changes had apparently taken place.

Sections of the pus tube showed mucous membrane swollen, hyperemic, infiltrated with polymorphonuclear leucocytes, and covered with a mucopurulent discharge; in places showing signs of coagulation necrosis, and great thickening of all the other layers with round-celled infiltration even to the serous coat.

Bacteriological Examination.—Smears were taken from pus in the tube, and stained by the simple methylene blue process. Examination showed polymorphonuclear leucocytes, many of which contained the well-known kidney-shaped diplococci, some of these diplococci being also seen outside the pus cells. Unfortunately no other method of staining was employed, therefore no absolute certainty as to the true nature of this organism.

Remarks.—One point of interest in this case was the difficulty of diagnosis. Here we had a large, regular, hard tumor occupying the greater part of the abdominal cavity complicated by an acute inflammatory condition going on apparently behind it. The question arose, Had we an appendicitis, or some inflamed attachment complicating the fibroid? Prior to the operation the latter was thought to be condition. The possibility of pus tube was never entertained.

A question arises—What is the proper course to pursue in cases of uterine fibroids complicated by a secondary inflammatory process? Is it advisable to operate at once, or wait for the acute condition to subside?

If this pyosalpinx was gonorrheal in origin, how and when did the gonococci get in?

Pharmacology and Therapeutics.

IN CHARGE OF
A. J. HARRINGTON, M.D., M.R.C.S.(Eng.)

LABORATORY WORK IN ITS DIRECT RELATION TO SCIENCE.

THE stitch in time that saved nine of our grandmother's day has broadened and deepened its meaning, and, in its twentieth-century comprehensiveness, the precept has applied itself to preventive medicine, and science, armed with antiseptics, scalpel and microscope, is carrying on her crusade against disease in centres of population, large and small.

Glibly now we speak of serums, and dexterously do we inoculate our patients with vaccine and the other anti-toxins, and await results.

It is always a pleasure for a busy physician to pause in his daily occupation of the application of curatives, and accept gratefully an opportunity to watch the process of manufacturing the agents with which he has so often and successfully battled against disease. Lately, we received the "open sesame"—an invitation to visit the new vaccine and anti-toxine stables a short distance from that paradise of cities—Washington, D.C. This concern is owned by the National Vaccine and Anti-toxine Company, of that city.

Stables, used for the propagation of this important work, are situated in the country, in a healthful locality, upon slightly rising ground, in order that perfect drainage may easily be attainable, and are some little distance from heavily-travelled roads, so that they are free as possible from dust contamination. The surrounding tract of land consists of from ten to twenty acres, and by that means avoids any near crowding of buildings upon adjoining property, where the sanitation cannot be controlled. An abundant supply of good water is within easy reach.

The buildings are of substantial construction, well heated by a hot-water plant. Good ventilation and drainage is provided in accordance with the best methods of modern sanitary science. Closets and urinals are excluded from these buildings. The attendants are provided with suitable quarters, having separate drainage at a proper distance from the stables. The interior



VACCINE LABORATORY.

finish is such as is provided in the most modern hospital construction. The floors are well laid in cement, the best attainable both in quality and workmanship, top dressed with some material which renders it non-absorbing, and slightly sloping from every side to properly-placed traps for drainage.

The walls and ceilings are of smooth hard plaster, with sanitary corners and with a non-absorbing finish, so that they can be thoroughly flushed and washed with water from the hose, whenever desirable. The woodwork is hard finished with rounded corners, and free from beading or other ornamentation. The stanchions for the calves are of iron and are exceedingly simple in construction, and so made that every part is readily accessible for cleaning. Care is taken that in each stable the number of calves provided for shall not exceed the proper proportion to the number of cubic feet of air space which the room contains. All doors and windows are provided with screens, so that flies and other insects may be excluded.

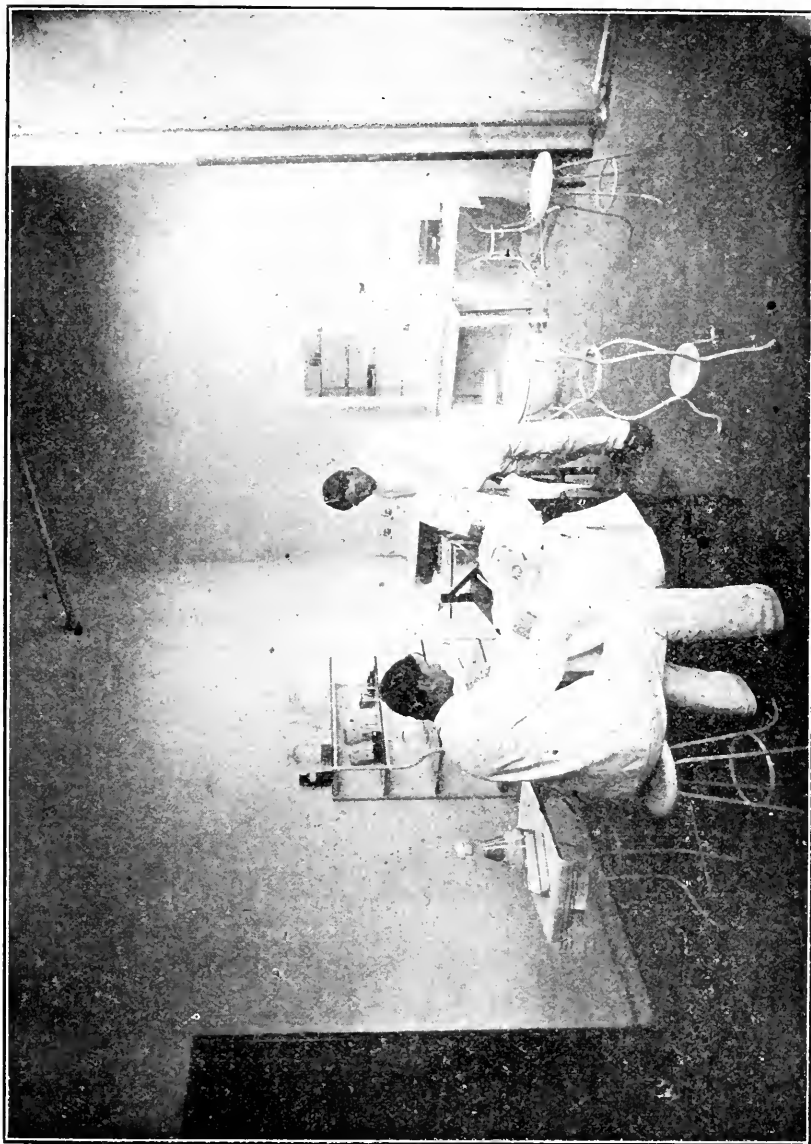
The plan of the buildings is such as to provide for three distinct parts, it being always desirable that these should be separated from each other by a passage or corridor which is freely open to the air: (1) The reception or quarantine stable, where the animals are received and kept until it is definitely determined that they are in perfect health. (2) The operating and other work rooms. (3) The incubating stable, where the calves are kept after they have been vaccinated, until the vesicles have matured.

The receiving stable contains, in addition to the large stable, a room where the calves are clipped and washed at the time of admission, and one where they can be shaved and prepared for vaccination.

In the second part of the building are the operating rooms, where the calves are vaccinated, and where the "lymph" is removed from them when the vesicles have matured. It also contains a sterilizing room, a milk room, where there are refrigerators for keeping the milk cool, and also appliances for rapidly warming a sufficient quantity of milk at feeding time. A dressing-room for the attendants, and a room where, if desired, the "lymph" or vesicular pulp can be ground and prepared is also present.

The incubating stable is so arranged that direct sunlight can be excluded at least from striking upon the vaccinated animals, and special care is taken in the arrangements for ventilation and drainage.

The Laboratories.—In another building in the city of Washington there is a thoroughly equipped bacteriological laboratory, a sterilizing room, and rooms where the "lymph," when ready



OPERATING ROOM, VACCINE STABLES.

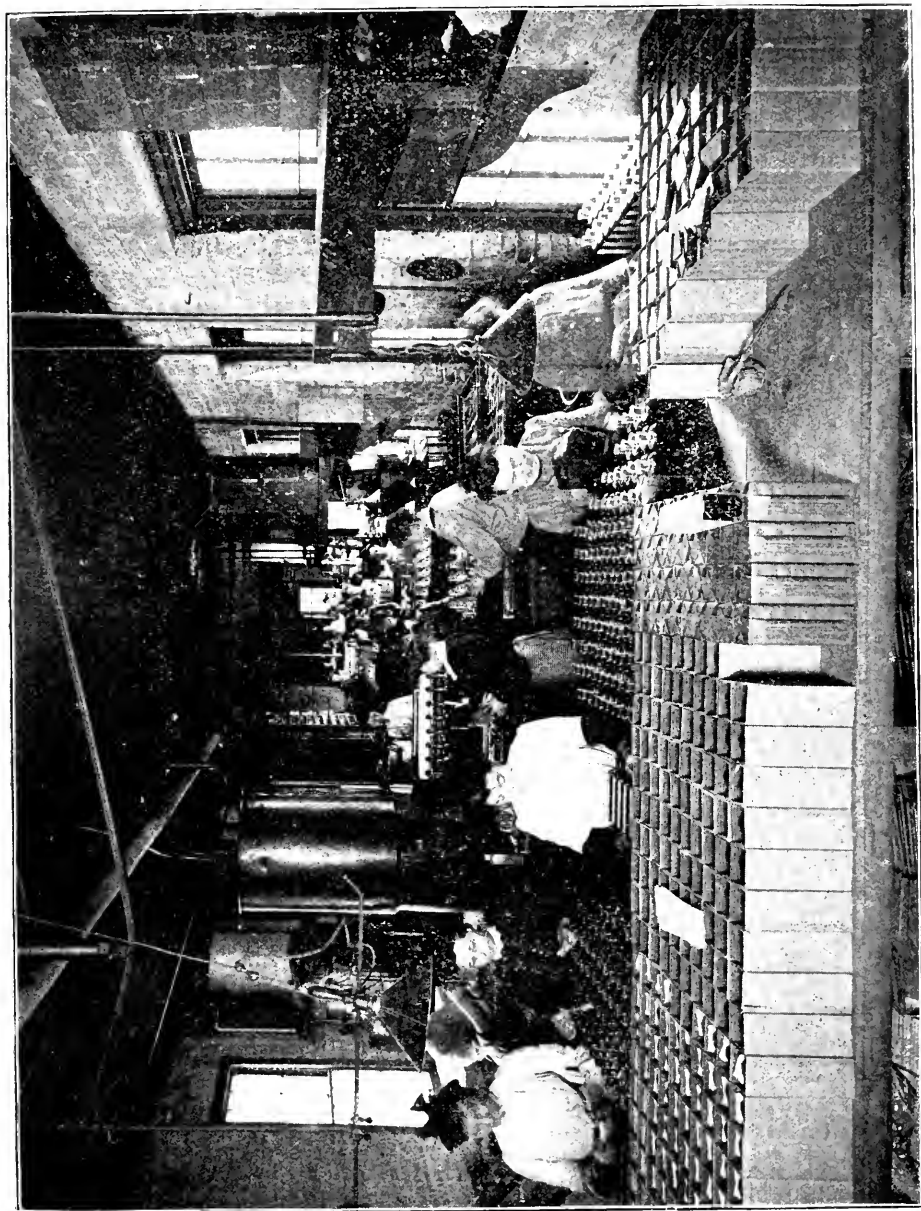
for the market, can be filled and sealed in capillary tubes, or upon points under strict aseptic precautions by employees specially trained for the purpose. These, with the business offices, complete the plant. The calves are all carefully selected from the best source of supply available. If they are purchased in the open market, they are kept under observation for at least a week before they are to be used.

Female calves are used because of the less liability that the vaccinated area will be soiled by the urine. Young animals from four to eight weeks old are preferred. They are fed exclusively upon milk. When received, each animal is clipped, and subjected to a thorough washing and grooming, and is placed in the reception stable, which is maintained at an even temperature. Under each calf at his stanchion is placed a movable platform, or grating, made with transverse slats of hard wood, raised about two inches above the cement floor, and so arranged that the animal's hind feet rest near the rear edge of the platform, in order that the dejecta may always fall free from it.

In the records which are kept, the card system is employed. A temperature chart, and such other notes as are from time to time added, is suspended upon the stanchion above each animal. These notes at this period include the following: date, source from which obtained, sex, approximate age, weight, color, and markings, and any special marks or tags.

Under "general conditions" is noted the appetite, whether well nourished or not, alertness or lassitude, temperature, pulse, respiration, presence or absence of cough, and any abnormal discharges from mouth, nose, or genitals. (The navel in very young animals may be occasionally found unhealed and suppurating.) Of course, any marked departure from the normal in these points, or those that follow, should occasion the animal's rejection before it is brought into the stable. Such departures from the normal as are observed, therefore, will be of slight degree, or such as have been overlooked at the time of admission, or have developed after the animal was received.

The skin is carefully examined for any lesions, eruptions, or discolorations, also for parasites that may be present. The condition of the coat is also noted, and also the condition of the dejecta, the frequency of movements, consistence, whether hard, soft or liquid; the odor, whether normal or offensive, and the color of the feces, not only at the time of admission, but from day to day during the time the calf is in the stables. A microscopic examination of feces or any parasites that may possibly be present, and a culture in bouillon under anaerobic conditions, in order to exclude the possibility of the tetanus bacillus, is always made. Careful examination is also made for any



BOTTLING DEPARTMENT COD LIVER OIL AND FORMOLIN, ETC.—SECOND FLOOR

enlarged lymphatic glands. The tuberculin test is also applied. The temperature is taken and recorded twice daily, and such other notes made as may be required.

Vaccination of Calves.—The preparation for vaccination consists in shaving the area to be vaccinated, usually the abdomen inner side of the thighs, and part of the buttocks. The skin is then thoroughly cleansed, first with soap and water, with a thorough scrubbing afterwards with hot sterile water, and sterile sponges, and finally carefully dried with sterile sponges, or a soft towel, the final preparation being made in the operating-room, to which the animal is taken and placed upon a specially constructed table of glass and iron. The clean skin is again carefully examined for any lesions or eruption, the animal being rejected if the skin is not found in a perfectly healthy condition. The area to be vaccinated is now surrounded with sterile towels, and the whole procedure carried out with practically the same technique as that used in a surgical operating-room. The operation consists in making linear incisions, or scratches upon the skin, each about three or four inches long, and about half an inch apart. They are of such a depth as to penetrate the epidermal, and enter the malpighian layer, preferably without drawing blood, since if the incisions are too deep, even after bleeding has ceased, quite a free exudation of serum will continue for some time, and will tend to wash away the vaccine lymph from the incisions. The number of such incisions will amount to, perhaps, a hundred; the number, length and direction of them being of no special importance, and depending rather on the caprice of the operator. Into these incisions is then introduced a sufficient amount of vaccine lymph, which has been rendered as free from extraneous organisms as possible, either by glycerinization or by one of the other methods now in use. A certain amount of time is required in the "rubbing in" process in order to insure a successful "take" in all the incisions.

Notes are usually made at this time, including the weight of the animal, the date and hour of the vaccination, preparation and area vaccinated, the number of incisions, character of the scarifications, and the laboratory number and date of the seed lymph used.

The calf is then removed to the incubating stable, which, in its arrangement and fitting, should be similar to the stable already described. Here the calves remain until the vesicles have matured. An employee is in constant attendance to see that all the droppings are immediately cleaned up, and the most perfect cleanliness possible is maintained. The gratings or platforms under the calf are changed twice daily, a clean, sterile grating taking the place of the one removed. The temperature of the

stable is kept as nearly as possible at about 68 to 70 degrees F., a self-registering thermometer showing any variation from this that may occur. The condition of feces, including the presence or absence of diarrhea, any other functional disturbance which may occur, as well as any departure from the usual range of temperature, are carefully observed and recorded during this period.

Collecting the Lymph.—At the end usually of five days (120 hours), the calf is again brought to the operating-room, and placed upon the table. Under the same precautions as before, the vaccinated area is thoroughly cleansed, washed and dried. If a typical success has been obtained, each incision should then appear as a line of continuous vesicles. The skin between the incisions should be clear and free from any redness or induration, the time at which the vaccine material is taken being that at which the vesicles have reached their full maturity, but before they have become purulent.

The material obtained consists of the entire contents of the vesicles, commonly called the pulp. It is removed by a sharp spoon curette, which is drawn firmly along each line of vesicles, removing everything down to the firm tissue underneath. This is done with a single motion, in order to avoid the admixture of blood. The vesicular pulp so removed is received in a sterile glass vessel of known weight, and provided with a cover. When all has been removed it is carefully weighed.

Notes are made of the result in each case, giving the date and hour of collecting the lymph, the condition of the skin in the vaccinated area, the character of the vesicles, and the weight of the vesicular pulp in grains. The weight of the animal is also recorded for comparison with that at the time of admission and vaccination.

The next step in the procedure consists in converting this material into a finely divided emulsion, in a mixture of water, with some other material which has the property of more or less rapidly destroying the very numerous bacteria, which are always present, while at the same time it is comparatively non-injurious to the specific virus of vaccinia. Since Monckton Copeman demonstrated, in 1891, the fact that glycerinated lymph became practically sterile at the end of about four weeks, and still retains its potency often for many months, glycerine has been the material largely used for this purpose. Other materials, notably chloroform and a weak carbolic acid solution, have recently been used to some extent, but their practical value has not yet been fully demonstrated. Glycerine diluted with from 30 to 50 per cent. sterile distilled water is the mixture usually employed. With this, the vesicular pulp is ground up by means of one of

several machines specially devised for the purpose. The proportion of "pulp" to the glycerine and water mixture varies widely at different propagating stations in this country and abroad, one part of pulp by weight to from six to ten parts of the glycerine water mixture being a common proportion.

The emulsion so prepared is the "glycerinized lymph," which is the form of vaccine virus most widely used at the present time.

It is as yet, however, far from being ready for use. It must be stored from four to six weeks in a cool, dark place, and before it is given out for use it is subjected to the most rigid bacteriological and physiological tests.

Agar plate cultures are prepared, and account made of the number of colonies which develop in them, both at the time of mixing, and later, from time to time, until all the extraneous organisms have disappeared. An absolutely germ-free lymph, to be obtained in the open market, in unlimited quantity, and at any time, is as yet an unrealized ideal. While this should be the aim, it must never be forgotten that the one and only essential value in vaccine is its potency, *i.e.*, that it shall yield a high percentage of successful "takes," and that the vesicles so produced shall give full protection against smallpox. It would be a most unfortunate result of the efforts made to secure a so-called sterile or aseptic vaccine, if, while succeeding in this, we should produce a deteriorated virus, having an impaired protective value.

The fact that tetanus has, in rare instances, followed vaccination, renders it necessary that rigid tests should be made for this organism before vaccine is placed upon the market.

This is best done by inoculating a large tube of bouillon with a considerable quantity (at least 1 c.c.) of vaccine lymph. This is grown under anaerobic conditions for four or five days. Unfortunately, most of the organisms which usually contaminate vaccine lymph, grow freely under anaerobic conditions, so that there will be always in these tubes an abundant growth.

To make the test sure, the culture is very carefully examined for end-spore bacilli. A portion of the culture is then passed through a porcelain filter and a guinea-pig inoculated with 1 c.c. of the filtered material. The remaining portion of the culture is then heated to 80 degrees C. for an hour, and 1 c.c. of this introduced into a fresh tube of glucose bouillon. This should then be incubated under strict anaerobic conditions for three or four days. If then no end-spore bacilli are found, and the inoculated animal has developed no symptoms of tetanus, and if, in the second culture, there has appeared no cloudiness, and no formation of gas, we may exclude the presence of tetanus bacillus.

Tests of the potency of the lymph should be made, either on

animals or children, as near the time it is to be sent out as possible. Ordinarily glycerinized vaccine may be relied upon to remain potent for at least three or four months.

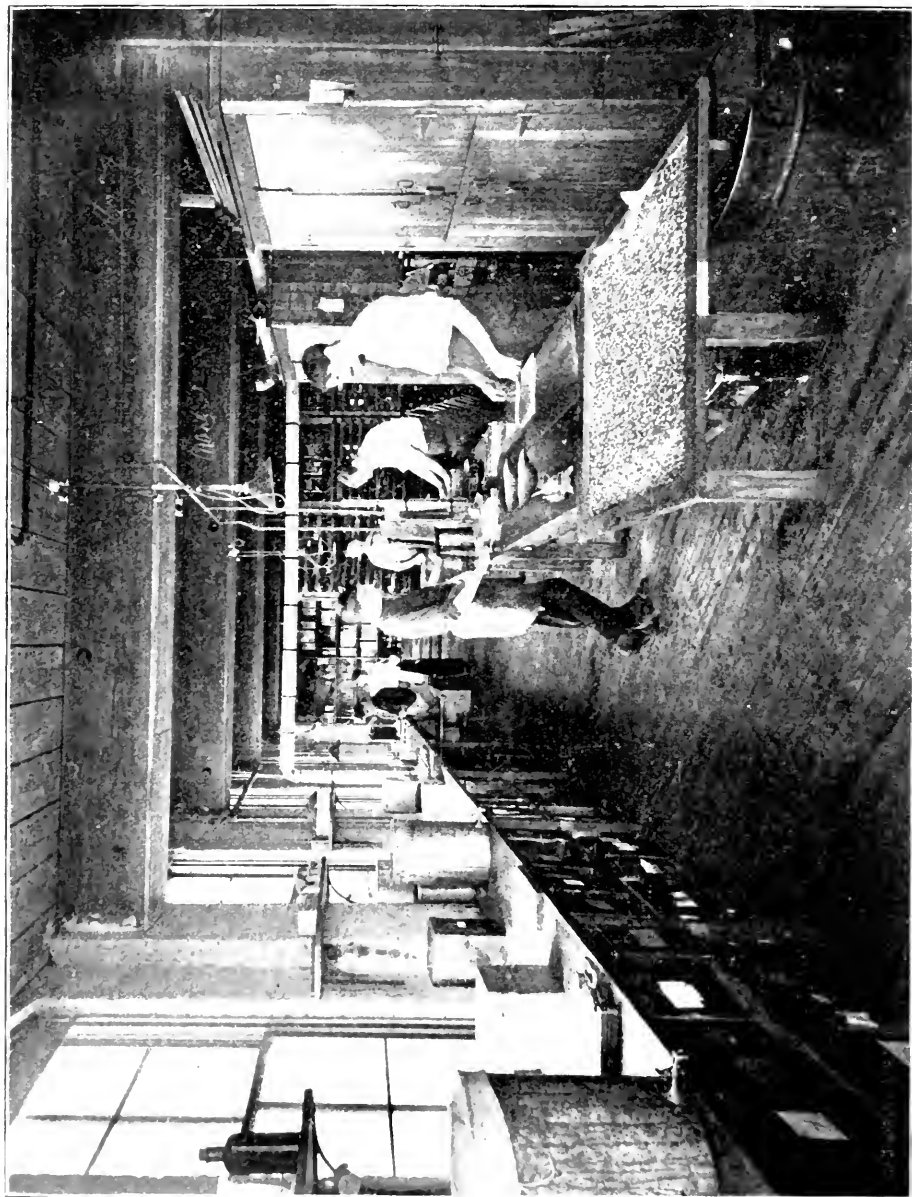
Finally, in filling capillary tubes, or charging points ready for the market, the strictest precautions are observed. Doubtless contamination of vaccine can easily occur at this time, where a sudden and very large demand taxes to its utmost the resources of the establishment.

It can, therefore, be seen that the National Vaccine and Anti-toxine Company not only have installed the best kind of a plant obtainable for the propagation of vaccine, but follow out in every minutia scientific details.

On our way home a most interesting visit was paid to the laboratories of H. K. Wampole & Co., in the "City of Brotherly Love," who, we may say, are sole selling agents for the National Vaccine and Anti-toxine Company, whose buildings and methods we have just described.

We first visited the counting-room, also the packing and shipping departments. Leaving these departments, we visited the fifth floor of the Fairmount Avenue Building, and commenced with the pill-coating department. This department is given over entirely to the coating of pills and tablets, and their polishing. In coating pills, they are placed in large metal cylinders, kept warm by a series of tubes carrying steam encircling their outside diameter. A pipe leads to the mouth of the pill-coating drum, supplying a strong stream of dry, moderately cool air. The pills to be coated are placed in the drum, and the solution with which they are to be coated poured over them. The rotation of the drum moves the mass, causing each pill or tablet to receive its proper share of the coating material. This coating solution is applied from time to time until the proper degree of thickness of the outside covering has been reached. After a thorough drying, the pills or tablets, as the case may be, are placed in polishing drums in the presence of dummies or heavier pills, which cause them to freely rotate, or run each upon the other, during the rotation of the polishing drum. The tablets or pills are thus polished to a great degree of brightness by simple friction.

From this point, we visited the mass pill department, where the pills are made by mixing the ingredient in a soft, pasty mass, and then run through a machine, the first set of belts of which roll the mass into a long solid cylinder, this cylinder being divided into sections by circular knives. These sections are then rotated between two sets of belts, which, in addition to their motion from the front to the back of the machine, have at the same time a lateral horizontal motion, serving to roll each section into a perfect sphere. These spheres are then passed through a



CAUSE LE DEPARTMENT, PART I.

set of rollers, the spiral screw on the outside diameter of which is so placed and nicely adjusted as to drop all irregular shaped pills, or those either deficient or exaggerated in size, allowing only the perfect ones to pass down a little chute, which carries them to a revolving plate, in which they are made oval in shape, if so desired.

From there we visited the powder room, given up entirely to the preparation of seidlitz powders, tooth and face powders.

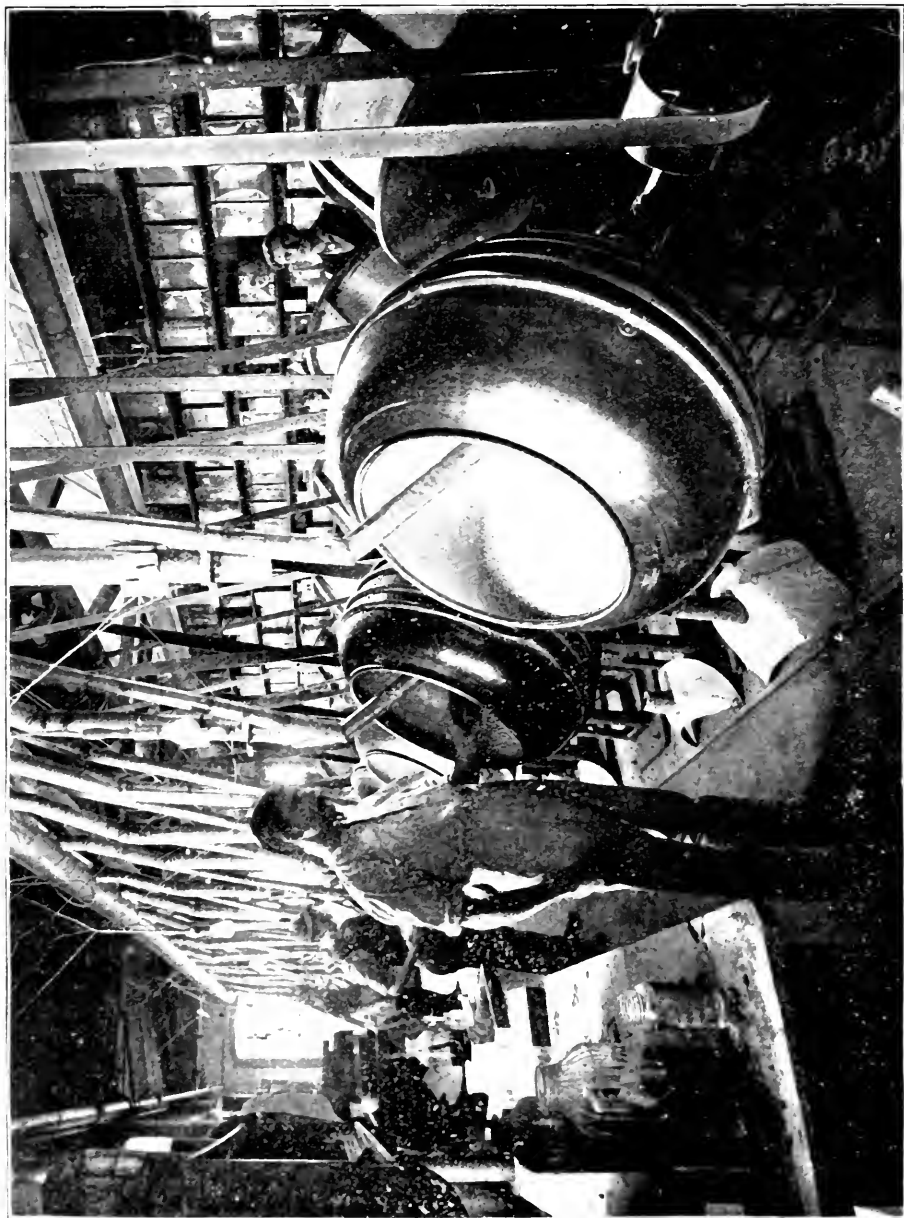
Next the capsule department, in which we were interested in the manufacture of both hard and soft elastic gelatine capsules. In the manufacture of soft, elastic-gelatine capsules, filled either with an oil or with a powder, the bottom perforated plate is covered with a sheet of gelatine which has been previously prepared by being poured over a brightly polished metal plate, the requisite liquid or powder is then poured evenly over this bottom sheet of gelatine, covered with a top layer of gelatine, prepared as are all of the gelatine sheets, the top perforated plate placed over all, and the whole subjected to pressure, the capacity of the compressing rams being able to reach the tremendous pressure of three hundred tons. The ingredient used is intended to fill the capsules at the points of perforation, top and bottom plates, the pressure so compressing the two layers of gelatine as to make them appear continuous. After removal from the press, the top plate being removed from the bottom, these capsules separate out readily, one capsule corresponding to each perforation in the top and bottom plates, leaving a net-work of gelatine between the capsules, called a net.

In the hard gelatine capsules, the ingredient is simply embodied with the gelatine, and the whole compressed under great pressure so as to form a solid spheroid.

In the gelatine capsule department, the capsules are not only made by machine, but are also filled by hand. These hand-made capsules are made by dipping metal forms of the proper shape and size into heated gelatine, and then allowing the gelatine to dry on said form, until it becomes sufficiently hardened to be removed, exactly like an elastic rubber covering. These are then filled with the proper ingredient, and the open end sealed by a hot iron dipped in fluid gelatine.

From the gelatine capsule department, we next visited the room where the elixirs and fluid extracts are bottled, corked and labelled, and passed from there into the analytical laboratory, in which chemicals are analyzed, and all physiological experiments establishing the therapeutic action and strength of the preparations are performed.

This analytical laboratory is equipped with microscopes, kymographs, cameras, hemocytometers, hemoglobinometers, and all other instruments required in physiological or clinical work.



PILL AND TABLET COATING DEPARTMENT.

From there we visited the pulverous pill department, where all of the pills are made and finished, with the exception of the coating. Pulverous pills contain various substances in a dry powder, enclosed within a thin and soluble coating, which is a mixture of gelatine and sugar.

The powder for these pills is prepared in the mixing room, where all of the ingredients are mixed together in revolving drums, carrying heavy steel balls. Of course, this has very much the effect of a mortar and pestle, but in addition to being mechanical, is capable of a much greater amount of pressure and pulverization, and a more thorough and perfect mixing than could be accomplished by other means.

The gelatine pill-coating department is largely given up to the coating of quinine pills, most of which are oval in shape. These pills are run through a perforated plate, each perforation corresponding to the end of a tube, from which there is a sufficient suction supplied by vacuum pumps to hold it fast. The plate carrying the pills can be readily dipped in gelatine, and then placed in a dryer. The pills may be dipped a second time if a heavier coating is necessary.

We were also taken through the granulating and drying department, where powders are granulated and thoroughly freed from all moisture before being fed to the tablet machines we noticed in the room adjoining. At the extreme end of this tablet department is situated the hypodermic tablet department, an isolated room where these latter tablets, requiring great care and accuracy in their preparation, are made and finished.

We also looked into the cone room for a moment, where vaginal cones and urethral bougies are made of gelatine, glycerine, and the proper medicaments, by pouring the melted mass into brass moulds, which are then placed on ice until cold.

We next visited the department in which all perfumes and toilet articles are bottled and properly prepared for placing on the market.

From there we went to the pill-finishing, and then the tablet-finishing, departments, where the pills and tablets undergo a final inspection as to any possible imperfections in their coating, surface, or appearance, and are counted and placed in properly labelled bottles. Great care is exercised in this department that no product be allowed to pass, to which the slightest exceptions could be taken as to any imperfection in weight, size, or even in shade of color.

We found that bottles labelled as containing a thousand pills or tablets do not contain nine hundred and ninety-nine or a thousand and one, but contain one thousand exactly. This is done by means of a board with perforations of the proper size



PULVERER'S PILL DEPARTMENT

numbering five hundred. This perforated plate being slid up into a quantity of pills or tablets—whichever the case may be—each perforation is filled with a pill or tablet; the plate being slid down, exactly five hundred pills are dropped into the funnel leading to the bottles; two of such drops of the plate filling the bottles with one thousand. Boards are also used which count five thousand at one operation.

We next visited the room where elixirs, fluid extracts and syrups are prepared.

From there we passed to the assembly room, where a general stock of all preparations is kept, to be drawn upon to fill miscellaneous orders, and from there downstairs through the packing room and shipping department again to the office.

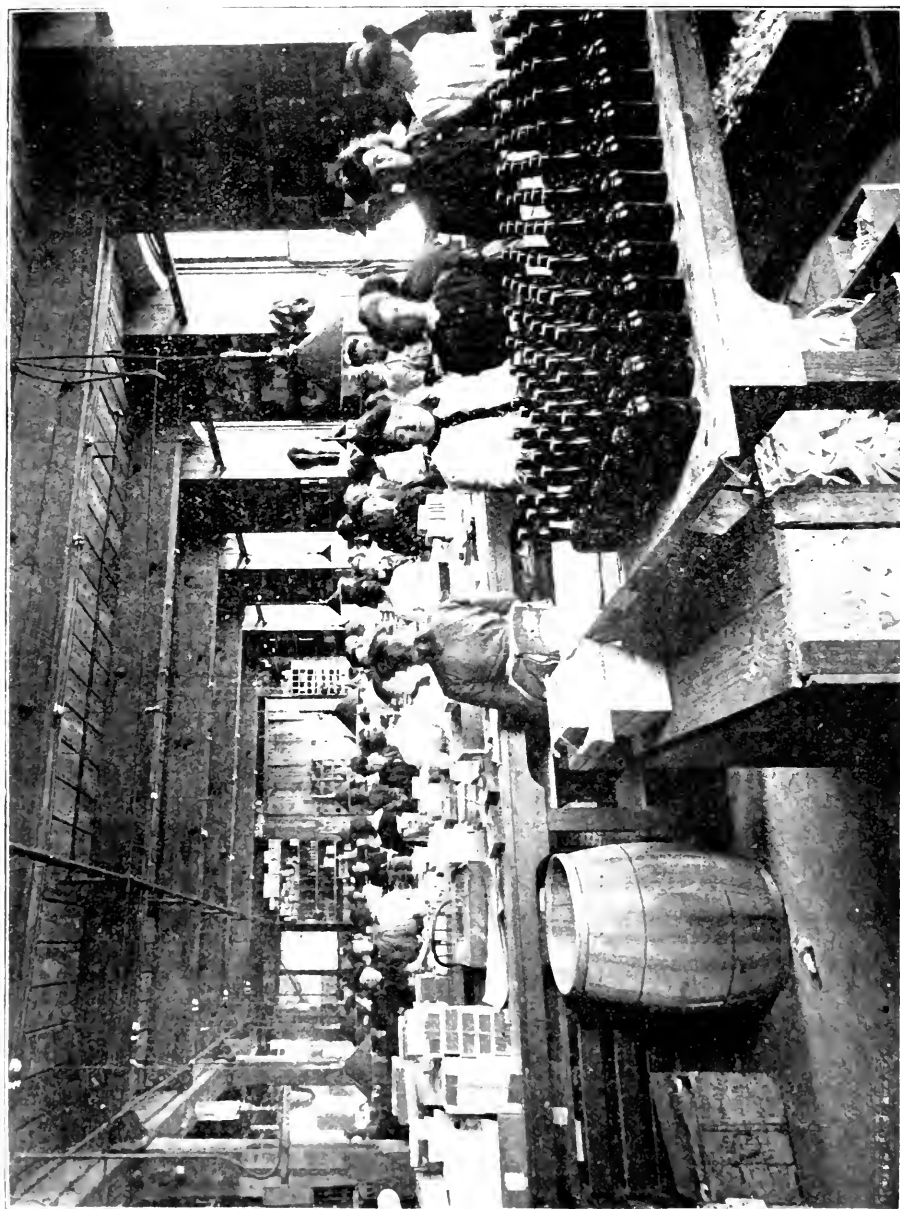
There are several departments which we did not have the time to go through. One is that on the sixth floor, where are kept all of the cartons, labels, general circulars, pasteboard boxes, etc., the other the department in which fluid extracts and other liquids are kept in large bulk, where mixing is done by machinery in large pans, and also where the evaporators and vacuum pans are in use. Another department is where pharmaceutical specialties are made, mixed and finished—all but the bottling and labelling.

Still another department is that in which is manufactured peroxide of hydrogen. This in itself is a complete building, being occupied otherwise only by a grinding machine and a presser for grinding crude drugs or the extraction of their juices.

There is also the effervescent salt room, in which the salts of phosphate of sodium, alka lithia, citrate of magnesia, etc., are finished, bottled and labelled.

Finally, there has just been installed a very good nucleus for their own printing plant. This has become necessary on account of the large and constantly growing increase in that line of expenditure, and the demand for expediency in the firm's business.

The growing regard in which the products of this firm are held by the medical profession led us to think that a visit to their Canadian laboratory in Toronto and a description of such visit would be of interest to our readers. We communicated with the firm defining our object, and met with a hearty invitation, and of the many interesting sights and matters we saw and learned of, we now give a brief account; but as full justice cannot be given the firm in this article, we hope that all our readers will take the first opportunity to go and see the laboratory for themselves. An open invitation is extended to all, and we can but say that the time spent in looking over the large plant, and listening to the explanations given, will prove of value and assistance, particularly to medical, pharmaceutical, and dental students.



PHARMACEUTICAL FINISHING DEPARTMENT.

For some years this firm's specialties only were exploited here. The increasing sales and the abundant evidence of a still further successful expansion caused this firm to look into the matter of establishing a laboratory in Canada. The encouraging nature of the report on this field convinced them of the feasibility of this scheme, and steps were promptly taken in that direction; Toronto from its geographical position being the city chosen.

Almost four years have elapsed since the inauguration of the Toronto laboratory, during which period further branches have been opened, viz., at Montreal, P.Q., and Winnipeg, Manitoba, under the control of the Toronto House, which in itself is evidence of the great foresight exercised in coming to Canada. The commencement of operations called for the use of a portion of the basement and first floor of the present premises, and the growth of the business was followed with increased accommodation, the whole pile of buildings, Nos. 36, 38, 40 and 42, facing Lombard Street, now being occupied by the firm.

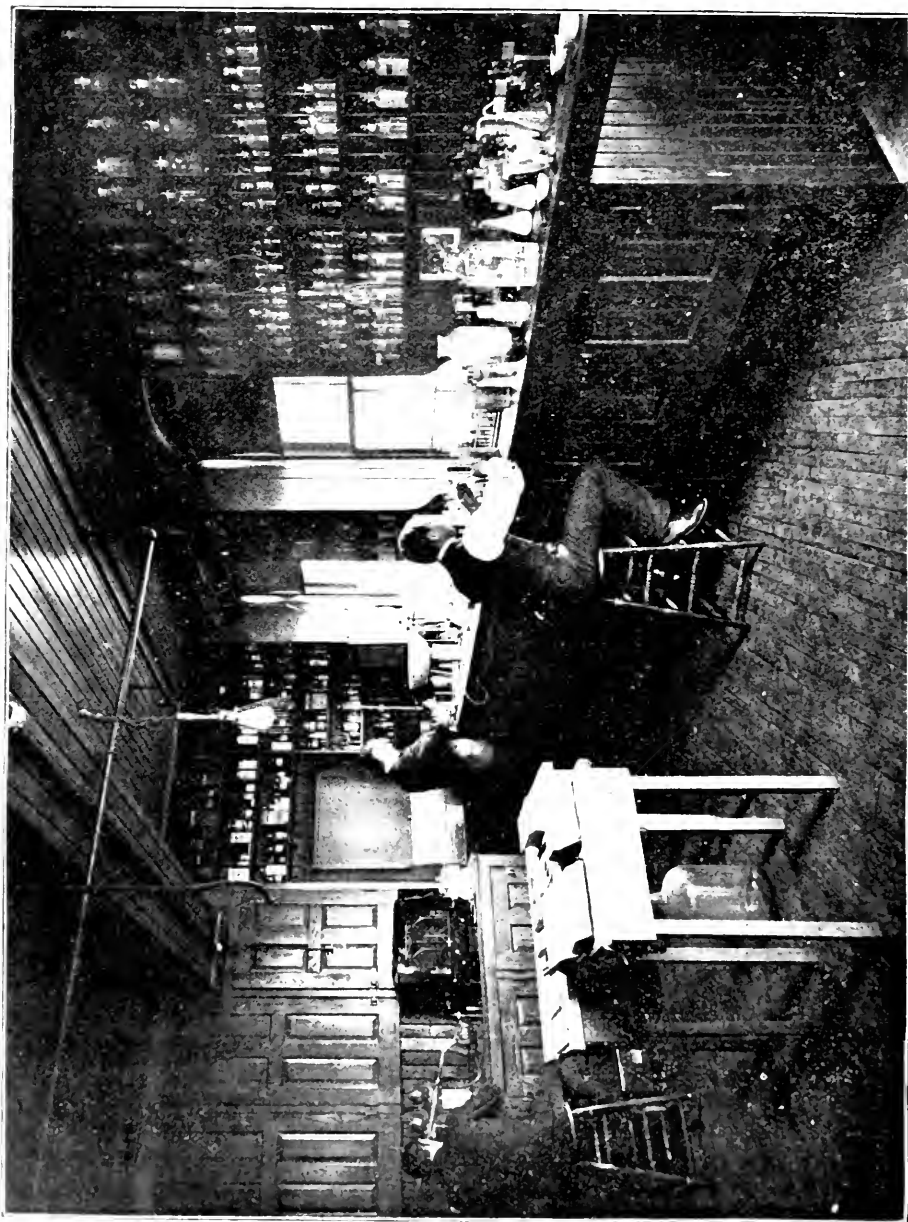
The laboratory and offices initially employed three hands and one travelling salesman—to-day their help numbers one hundred and sixty-eight in laboratory, fifteen travelling salesmen, and twenty-two in the offices. This increase in four years speaks volumes for the management. It is wonderful to think of the push and energy that must have been exercised to show such splendid success in the developing of the business.

Our attention was called to the basement, whither we were conducted, and we found this portion devoted to the manufacture of all kinds of toilet waters, tooth pastes, powders, creams, medicinal elixirs, syrups, fluid extracts, etc.

The different machines used, therefore, are of peculiar interest—steam-jacketed kettles, percolators, mixers, and stationary tubs, with the latest sanitary steam attachments for cleansing bottles. The engine and boilers are located here also, and form quite a study in themselves. Stocked in the basement are large drums of glycerine, and many other goods used in manufacture, all in bulk quantities, inclusive of bottles of all shapes, sizes and kinds.

The first floor comprises the offices where the large staff (including no less than seven stenographers) actively pursue their duties; a commodious sample and travelling representatives' writing room, where elegant show-cases display the handsomely packaged products put out by the firm. Writing tables fully equipped with stationery are provided for the travelling salesmen.

The packing and shipping department takes up the remaining portion of this floor, and here you will find an object lesson. Few have any idea of the care and attention given to the despatch of

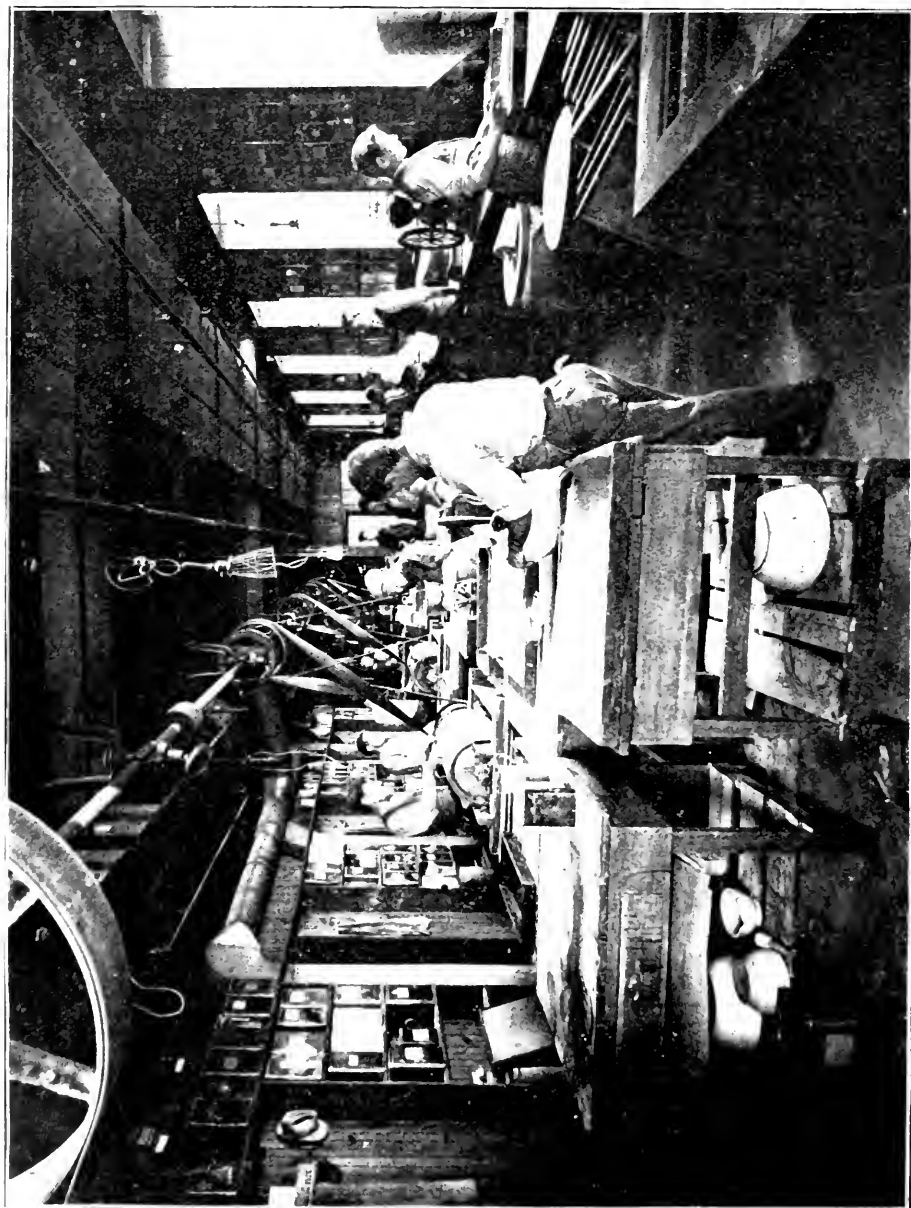


ANALYTICAL LABORATORY.

goods by this firm. A system has been arranged allowing a double check on the making up of each package, and there is no possible chance of the wrong goods being packed for delivery. The actual packing itself is carried out by experienced men, and the Wampole Company's claim to perfection in this department is, we think, fully established by the results, and their exceedingly prompt city delivery is generally spoken of in the drug trade.

On the second floor is located the chief chemist's offices and private laboratory for analytical and research purposes. The perfumery department is to be seen here. The first room you enter is the work and stock room, where the finished perfumes are shelved ready for bottling and putting up, which is also carried out in this room, the large stock of all sizes and shapes of bottles, labels, and fixings, and the pretty boxes being all neatly packed in the spacious shelving provided for that purpose. The Inland Revenue Department License, hung over the door-way adjoining, denotes the bonded manufacturing room. Mixing and blending are carried on here under the supervision of an Inland Revenue Officer, at certain fixed hours of the day under locked doors, and on the completion of each day's work, this officer locks and places the Customs seal on the door. We were privileged to sample many of the perfumes and colognes, and must congratulate Messrs. Wampole & Company on the exquisite products of this department, which we learn is of recent introduction. The major portion of this floor is devoted to the putting up of many preparations made throughout the laboratory, also the manufacture of the tasteless cod liver oil preparation, which process is extremely interesting, the clever automatic device for holding and filling the bottles particularly so. The neat and rapid manner in which the various processes of putting up are carried out, viz., labelling, capping, tissueing, cartoning, and packing in cardboard boxes, calls for an expression of admiration. The finished stock ready for the supplying of customers' orders is kept in commodious shelving, so divisioned and arranged in alphabetical order that any one item may be located immediately. In passing, our attention was directed to an electrical contrivance, by means of which the whole of the machinery throughout the entire laboratory can be kept running should any breakdown of the steam power eventuate. Could anything demonstrate more clearly the business-like management of this large concern?

Still another floor, we were informed, and mounting the stairs were ushered into the pulverous pill department. Messrs. Wampole & Company were the originators of the pulverous pill, which, in other words, is a coated powder. Close by is the compressed tablet department, and an inspection of all to be seen in both these



GAS LATING DEPARTMENT.

places convinced us of the peculiarly unique processes adopted in the manufacture of these commodities. The pill-coating and polishing machinery was next under our attention, and a demonstration made, which we appreciated. The manufacture of effervescent salts is carried on here also, and is not without its interesting features. The bottling and putting up of all the manufactures on this floor is attended to in a department near at hand, and the finished goods are stocked in shelving, divisioned and arranged as on the floor below.

One important factor in connection with this business, and which we deem worthy of mention, is the label department. No one has any conception of the quantities used, and of the care and attention required in handling them. The system shown us was, indeed, complete, and overcomes any possibility of a wrong label being placed on a bottle or package.

System reigns right through this modernly equipped laboratory, and the marked progress and development of the business of this firm is due entirely to the capable and aggressive management of Mr. H. W. Brick, combined with the excellence and high standard maintained in the manufacture of their products. Their success has been well merited, and the strict adherence given to their motto, "Quality first, price next," places them on a pedestal hard to excel.

Our universities and medical schools constantly are sending out the call, "More room for research work." The large pharmaceutical houses, in their department of work, seem, in a measure, to echo the cry by erecting such magnificently equipped laboratories, which ought to, and do undoubtedly, possess for all medical practitioners an ever-increasing interest, as day by day improvement after improvement creeps into the method of manufacture, until each ivory point, capillary tube, capsule, pill or powder seems stamped indelibly with the word "Excelsior."

W. A. Y.

ON THE ACTION OF VERONAL.

BY DR. W. FISCHER,
Volunteer Physician to the Clinic.

DURING the winter term 1902-03, eighty-three patients received veronal at the psychiatric clinic here—sixty-seven women, including a girl of 14 years, and sixteen men.

Veronal (diethylmalonylurea) is a faintly bitter, colorless substance which is soluble in about 12 parts of boiling water and 145 parts of water at 20 degrees C.

The diseases in which veronal was used as a hypnotic were the following:

1. Simple insomnia (1 case). After 0.5 gm. (7 1-2 gm.) veronal, quiet sleep lasting six to seven hours set in without by-effects.

2. Trophoneurosis of the skin with violent itching (1 case). After 1 gm. (15 gm.) regularly, quiet sleep without accessory effects.

3. Morphine withdrawal treatment (1 case). The medication was given regularly for six weeks. After four days' use of 1 gm. a distinct cumulative action developed, consisting in considerable sleepiness during the whole day. In consequence hereof the patient received on three successive nights 0.5 gm. with perfectly satisfactory result, and the 1gm. again for four nights, and so on. The result was persistently good; by-effects of any kind did not show themselves.

4. Cerebral syphilis (1 case). As 0.5 gm. was without any effect, no further trials of veronal were made.

5. Sclerosis disseminata (1 case). For eight days the patient received three times daily 0.5 or 1 gm. veronal. The ensuing sleep was good, but not without interruptions.

6. Chronic alcoholism (1 case). Once 1 gm. and then 0.5 gm. was given for fourteen days. The sleep was good, but the patient the next day complained of dulness in the head.

7. Epilepsy (1 case). After 0.5 gm. good sleep without accessory symptoms.

8. Hysteria, common form (5 cases). Three of the patients received per dose 0.5, one 1 and 0.5, and one 1 gm. veronal. The last-mentioned patient slept quietly for six hours, but vomited on the following morning. The patient who received interchangeably 1 and 0.5 gm., and that thrice within four weeks, always had a very good sound sleep after taking the drug, and without by-effects. In the remaining three patients only 0.5 gm. was given at a dose; in one with good result; in the second quiet but interrupted sleep was produced; and in the third the effect was slight. The last two patients received veronal twice within five days. Untoward by-effects were entirely wanting in all three cases.

9. Imperfect perception and understanding of hysterical nature (1 case). After 0.5 Gm. no result was seen.

10. Hysterical psychosis (11 cases). The doses were generally 1 and 0.5 gm.; in one case, with violent excitation, up to 2 gm. was given repeatedly. In the latter case good sleep was always produced, but the next morning there was regularly a sick feeling regardless of the size of the dose. The patient received veronal twelve times within a period of seven weeks. In eight patients the action was very good, and without accessory phenomena; in most cases the drug was at intervals of four or five

days; one patient took in eight days four times 0.5 gm. In ninth patient the effect diminished on continued use of drug; at first 0.5 gm. brought on good sleep, but after a while the effect was not perfectly satisfactory; and one night the patient had a paroxysm, though she had taken veronal. In consequence, the dose was increased to 1 gm., and good results attained without by-effects. The patient received the medicament eight times in six weeks. The result was variable also in another patient, but still always without unpleasant accessory effects. This woman, too, received 0.5 and 1 gm. interchangeably six times in two months; the result was variable with either dosage.

11. Neurasthenia (10 cases). The doses were 0.5 and 1 gm. at two to five-day intervals. In eight cases the veronal acted well and without any accessory symptoms; and among these was a patient in whom all other hypnotics failed while veronal had an excellent effect. In the ninth case the action was also a good one, but the patient complained the next morning of dullness in the head. In the tenth case little success was had.

12. Exhaustion psychosis (3 cases). A twelve-year-old girl got within a week twice 0.25 gm. The ensuing sleep was good, by-effects did not manifest themselves. Two other patients, elderly women, obtained good, quiet sleep from doses of 0.5 and 1 gm. without by-effects.

13. Insanity from compulsory ideas (2 cases). In both after 0.5 and 1 gm. good results were obtained; no by-effects.

14. Cyclic insanity (3 cases). Good sleep was produced in all three cases. One patient complained of tiredness the next day; other unpleasant by-effects were wanting.

15. Acute hallucination (3 cases). Intense motor excitation in the three patients. The single doses of veronal were 0.5 to 1.5 gm. The result was always good, and there were no disagreeable accessory symptoms.

16. Senile depression (1 case). The patient slept quietly and without interruption after 1 gm.

17. Acute mania (5 cases). In two patients at first 1.5 gm. was given on account of violent excitation; the result was good. Later 1 and 0.5 gm. gave similar results. The third patient (sixteen-year-old girl) received only 0.5 gm. and slept well, but awoke several times during the night. In the fourth case the effect from 1 gm. was insufficient, but after 1.5 gm. excellent. The fifth case was in a man; he obtained quiet sleep from 1 gm. veronal.

18. Acute melancholy (11 cases). Doses 0.5 and 1 gm. In seven cases the result was very good. In the eighth case after 1 gm. the patient slept not only through the night, but also the next day; after 0.5 gm. the effect was excellent; good, quiet sleep

at night and in good condition during the day. During three months the patient received veronal thirteen times. In the ninth case (a woman) 0.5 gm. had little effect, 1 gm. very good effect; so the dose remained at 1 gm. In the tenth case (a woman) the result was unreliable, and in the eleventh case (a woman) it was wholly wanting. In all the eleven cases unpleasant by-effects were not manifested.

19. Periodic melancholy (1 case). After 0.5 gm. there was quiet, refreshing sleep, without accessory phenomena.

20. Paranoia simplex (1 case). The patient within ten days received two doses, 1 gm. each, with good result in every respect.

21. Acute hallucinatory paranoia (3 cases). Doses 0.5 to 1.5 gm.; no by-effects. Two of the patients were young girls, the third a young woman. In the latter patient, who in seven weeks received veronal, 1 and 0.5 gm., five times, the result was partly good, partly insufficient, independently of the size of the dose. In one of the girls the action was entirely wanting, whilst in the other good, quiet sleep resulted regularly.

22. Chronic hallucinatory paranoia (7 cases). In six cases good, sound sleep was produced by the usual doses. In the seventh case (an older girl) 0.5 gm. was insufficient, whilst 1 gm. always brought on quiet sleep for about six hours. There were no untoward by-effects.

23. Dementia precox (1 case). The patient received in eight weeks seven 1 gm. doses of veronal, and always with good result and without unpleasant accessory phenomena.

24. Dementia paralytica (5 cases). By-effects were wanting. In all five cases (men) only 1 gm. doses were given. In four patients the result was good; in the fifth, an intensely excited man, 1 gm. was given on three nights in succession. The first time the resulting sleep was good; in the other two nights there was insufficient sleep, but the patient was at least quiet.

25. Senile dementia (3 cases). The first patient (a man) received in the beginning 1 gm. Inasmuch as he complained of dullness in the head the next morning, only 0.5 gm. was given thereafter. The sleep was just as good after this quantity as after double the dose, and there were no unpleasant after-effects. During two months the patient received once 1 and four times 0.5 gm. The two remaining patients (women) received 0.5 and 1 gm., with uniformly good results and no untoward by-effects.

In these eighty-three cases the results attained with veronal may be designated as very good. Grave by-effects were not observed at all; unpleasant accessory effects, consisting of a sick feeling or vomiting, dullness in the head and sleepiness the next day occurred only **exceptionally**, and the number of patients in whom insufficient or no effect was produced is very small.

The veronal acted well in sixty cases, accumulatively in one case, and not at all in five cases, and slightly in six cases. Good sleep with interruptions was produced in four cases.

In these seventy-six cases there were absolutely no by-effects. Unpleasant symptoms the next day were noted in seven cases in all, and consisted of dullness in the head three times, twice in sleepiness, once in a sick feeling and once in vomiting.

Aside from the sixteen cases in which the result was insufficient or entirely wanting, and the seven cases in which disagreeable by-effects manifested themselves, the action of the veronal in sixty cases was very good. In almost all of these a quiet, generally dreamless sleep resulted lasting from six to ten hours, and after which the patients felt perfectly well and refreshed the following morning.

The single doses were usually 0.5 or 1 gm. (7 1-2 or 15 grn.); seldom 1.5 or 2 gm. (22 1-2 or 30 grn.). The drug is best given in warm milk, tea, or the like, or it may be administered in wafers.

According to the observations made thus far, the action set in as a rule within half to one hour after the administration; hence, the medicament was generally given between 8 and 9 o'clock in the evening.

Many patients repeatedly expressed their extreme satisfaction with veronal, and again and again begged for it, as the sleep after it was exactly like natural sleep, and just as refreshing.—*Therapeutische Monatshefte*, August, 1903.

To Fight Tuberculosis in British Columbia.—A largely attended public meeting was held in Victoria, B.C., January 20th, for the purpose of forming a provincial association to be called the British Columbia Association for the Prevention and Treatment of Tuberculosis. Dr. C. J. Fagan, Secretary of the Provincial Board of Health, presented the question at considerable length, and moved the resolution establishing the Association. He referred to the need of such an organization, as British Columbia was not abreast of the times in the respect of dealing with her tuberculous citizens, and then there were annually lost to the province 200 lives through consumption. He considered that Kamloops was an ideal spot for a sanitarium and stated that Mr. Gage, of Toronto, the treasurer of the National Sanitarium Association, had promised aid. Financial assistance will also be sought from the local government of the province as well as from the Federal Government. The Lieutenant-Governor, Sir Henri Joly, was elected Hon. President; Dr. Proctor, of Kamloops, secretary, and on the executive, Dr. J. C. Davie, of Victoria, and Dr. R. E. Walker, of New Westminster.—*Med. News*.

AN ADVANCE TOWARDS BETTER HOUSEHOLD SANITATION.

DR. A. C. ABBOTT says that hygiene is the science that deals with the laws of health in the widest sense. Practical hygiene, or sanitary science, is the art of preserving health, and includes a consideration of the methods that are employed in investigating the manifold phases of the subject. It is obvious that the fundamental points to be considered in the study of hygiene are those bearing upon the conditions under which we live. Hygiene is not so much a study of man, as a study of man's surroundings, with a view to determining in how far these are conducive or detrimental to his well-being.

Why should a physician, trained to cure the sick, equip himself with a knowledge that he is to employ in preventing sickness? Why should a physician practise preventive medicine, and follow the precepts of hygienic teaching? Laying aside the question concerning his functions as a physician, there is every moral reason why he, as a man, should use his best endeavors to lessen suffering and to save life, in so far as it lies in his power to do so, and this, too, regardless of whether it is to be of direct profit to him or not. There are material reasons for a physician's having a fairly accurate knowledge of the advances in preventive medicine. His patients demand it. With the universal progress in general education the public is no longer satisfied that a physician enter the house, prescribe his medicines, and depart. They desire more; they wish to know the nature, the origin, and the cause of the sickness, the most likely channel or channels through which the disease was contracted, and the most reliable means of preventing its recurrence or spread. If the doctor cannot supply reasonable answers to these questions, he need not be surprised if his employment be given to someone else who can. For his own enlightenment and personal welfare, if for no other reason, the physician should be familiar with sanitary laws, especially those concerning the causation and spread of disease, and the means of prevention. He should be familiar with the modes of infection, the methods of disinfection, the means for the isolation of the sick, and the general rules of prophylaxis in the management of contagious diseases. He should be familiar with the channels through which he himself may become infected, or the means by which he may serve as a carrier of infection, and the proper precautions for preventing such accidents. As an educated physician, he should know, and as a conscientious physician he should practise, these precepts, for the good, not only of his own patients, but of the community of which he forms a part. The medicine of the

period tends more and more in the direction of prevention, and, if the physician proposes to keep himself abreast of the times, it is imperative that he be in touch with the advances along these lines. While ignoring the subject, a new medicine grows up about him, and he is suddenly aware of his presence in an atmosphere unfamiliar and wholly uncongenial—an atmosphere that he does not appreciate, and with which he experiences no intelligent sympathy.

There has been recently introduced into Toronto a new system of house-cleaning by compressed air which must, of necessity almost, interest physicians. It is an advance in the right direction and, we venture to think, will be found to be in accordance with the theories of preventive medicine. By it the entire internal house fixings are thoroughly and quickly cleaned of everything in the way of dust or dirt, by compressed air, which collects and removes everything of that kind without it being allowed to mix with the air of the room or permeate the entire house. The walls are cleansed and the carpets thoroughly renovated by collecting the dirt, not only in their fabric, but between the carpet and the floor, without removing them or disturbing the furniture. Draperies, tapestries, decorations, and ceilings are also cleansed without in any way dismantling the rooms and without creating dust, the bane of the good housekeeper.

A point about this system that will interest our readers is that, by this method, a room or house can be disinfected after a case of contagious disease. The current of compressed air is charged with disinfectants, which penetrate every nook and corner, leaving little opportunity for the spread of disease and yet proving harmless to any fabric with which the air comes into contact.

By the compressed air method, one man can easily cleanse six or eight rooms in half a day, including not only the walls and ceilings, but the entire contents even to the bedding.

Compared with the old system of house-cleaning, the new system is certainly an immense improvement, and, for no other reason perhaps than that it is healthy, it will take but a very short time for the compressed air method to be adopted generally, judging from the number of times in passing along our best residential streets last spring, and in the early autumn, we saw the "hose and reel" quietly at work, rendering the house ornamental, a great service in causing it to become also the house healthful.

Not in private dwellings alone, but more especially in hospitals and public institutions, do we deem this new system necessary. It discovers dirt that would, perhaps, remain unseen, and removes it by a sort of Roentgen ray penetration, restoring

the appearance and color of fabrics and making them look bright and fresh. We venture to think that such an equipment is a necessary adjunct, and should be installed in every hospital, thus removing all chance of accumulated dirt which might add to the cases of sickness present in the institution. On every side the alarm is sounded about the spread of tuberculosis, and, as so many unfortunate victims of that dread disease are constantly seeking change of climate and travelling to and fro upon trains, it certainly would prove a great boon to the travelling public if the Pullman and sleeping cars were subjected frequently to this cleansing process, added to their present daily disinfecting and cleaning rules, which, if carried out, are excellent. Still, in conjunction with this "application of the microscope," if we may apply the term to the compressed air system, the public would gain an increased feeling of security against the possible invasion of bacilli.

It is not Christian Science treatment, in which you have to have faith in order that any good may be accomplished; but, on the contrary, a moment's examination of the actual dirt that can, by the system, be "pulled right through a carpet by the neck, and landed on the street," whence it is removed, can only convince one that this "absent" method for the dirt cure is worth a careful examination on the part of the medical profession, as "seeing is believing." "Cleanliness is next to godliness."

To Isolate Consumptives.—The feature of the meeting of the Insurance Institute on March 10th was the lecture by Dr. John L. Davison on tuberculosis in connection with life insurance. A very large number of members and medical examiners for life assurance companies were present. It was pointed out that about 12 per cent. of all deaths are due to tuberculosis, and in selected risks the mortality is about 8 per cent. Of all the exciting causes, by far the most important is light weight. Thin people are very much more likely to develop tuberculosis than stout people. The doctor recommended legislation to compel isolation and disinfection. He feared it is too soon to hope that the law will regulate marriages. Companies should send literature to every policy-holder, giving in the simplest and plainest terms the danger from contagion, some of the early symptoms and setting forth the fact that it is in most cases a curable disease in its incipency. Life insurance companies should pay a capable man to go through the community holding institutes for medical examiners to educate the examiners along life insurance lines.

The Canadian Journal of Medicine and Surgery

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., must be in our hands by the fifteenth of the month previous to publication.

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NO. 4.

Editorials.

THE TORONTO CONSUMPTION HOSPITAL.

The city of Toronto has passed a by-law providing fifty thousand dollars for the construction of a consumption hospital. When one considers that there are over thirteen hundred consumptives in different stages of the disease, in Toronto, and that the sum voted in the by-law would build and equip a hospital capable of accommodating fifty patients, our civic appropriation for tuberculosis seems small. All classes of con-

sumptives, however, need not be sent to the civic consumption hospital. Patients in the early stages of the disease might go to the Gravenhurst Sanitarium, those who are past cure being allowed to spend the remainder of their days at home or at the civic hospital. A consumption clinic is also contemplated. If installed, it will be used for the diagnosis and treatment of consumption. Apart from treatment, a great deal can be said in favor of an early diagnosis in consumption. All admit that great benefit results to consumptives, who are made to take proper nourishment, and breathe fresh air. Efforts should, therefore, be made to inaugurate the successful treatment as soon as possible, and this presupposes an early diagnosis.

A practitioner often finds that consumption has made rapid advances in a patient, who consults him for lung disease; and, in reply to the stereotyped question, "Can you cure me?" is forced to give a regretful "No."

The dilatory patient may afterwards try another physician, or several physicians. He may also drop into the hands of the patent medicine venders. He may proclaim that he has been "given up by the faculty," and, with an optimism quite characteristic of his disease, may continue absorbing sure cures, and "getting better," until he draws his last breath.

Unlike acute infectious diseases, consumption retains its hold for years, leading its victim very gently to the grave. During these years of breakdown, the patient has to live, and, if not rich, the necessary money is often earned with difficulty.

It is surprising, but none the less true, that women suffering from pulmonary consumption will continue to do light work. It is equally surprising how they manage to avoid the tell-tale expectoration. Men, of course, are given to expectorate for trivial causes; women rarely for any reason. In the experience of the writer of this article, several consumptives of the female sex have continued to do light work up to a short time before death, and such efforts were necessary in order to eke out an existence. Sanitarium life is to be recommended to patients in the early stage of tuberculosis, who are going to make an effort to conquer the disease. To continue such a mode of living for a year or more calls for a considerable expenditure of money. If the patient is poor, or in moderate cir-

cumstances, and the disease has become chronic, he should be allowed to work at some occupation sufficient to support life, or relieve the tedium of existence, care being taken that expectoration is practised in the proper way, and that the sputa are destroyed. If the sputa are conveyed to a spit-cup and afterwards burned, there is little danger in allowing a consumptive to remain in a house occupied by healthy people.

One of the chief reforms in the hygiene of tuberculosis which will quite naturally flow from the establishment of sanatoria in Ontario, will be that consumptive patients will be taught how to dispose of their sputa. If this function is properly attended to, the treatment of the consumptive will largely depend on his means. If he can migrate to scenes where the warm sun shines, and where he can sit in the open air, at a season when the people of Ontario are closing every crevice in their window frames; if the succulent steak, the fresh egg, the rich cream, and the fattening malt can be freely absorbed, then the chances of prolonging life are good. If the reverse is the case; if poverty weighs down the victim's efforts, then private benevolence, State or municipal subsidy must supply the deficiency, and come to the rescue of one whose disease calls for a regimen which his purse is unable to procure.

The notification of pulmonary consumption is excellent in principle, and, if carried out, would aid the health department of a city in securing the destruction of tubercular sputa in dwellings, places in which, by long odds, sputa are likely to do more injury to the well than when ejected on sidewalks, streets and public places. However, if notification is made law, we fear that a consumptive would go great lengths to avoid exposure, and would shun a consultation with a physician, rather than reveal an infirmity which would debar him from profitable employment. This fear of discovery is also an argument against the establishment of a public clinic, in connection with the city consumption hospital. In our opinion, all that a municipality has a right to demand of a consumptive is, that he do not expectorate, in public or private, so as to injure others. To assist him, the municipality may establish a hospital, in which he may be treated gratis, if he is poor. Instruction may be given to rich and poor, by leaflet or lecture, on the hygiene of ex-

peccoration, proper method of dieting, etc. As the bacteriological test of sputum is made gratis at the laboratory of the Provincial Board of Health, any person who suspects that he has consumption may have a diagnosis of his disease made in forty-eight hours by consulting a physician. If he cannot pay for the consultation, he can have the work done at a public hospital for nothing. Therefore there is no occasion to establish an expensive clinic for consumption in Toronto.

J. J. C.

THE "BUSINESS ASSESSMENT."

SOME Toronto physicians have complained of the new method of raising municipal taxes, contained in an Act introduced at the last session of the Ontario Legislature. This Act provides for a "business assessment," as follows: "Irrespective of any assessment for land under this Act, in cities, towns and villages, every person occupying or using land in the municipality, for the purpose of any business mentioned or described in this section, shall be assessed for a sum to be called a 'business assessment,' to be computed by reference to the assessed value of the land so occupied or used by him as follows:

"(c) Every person practising or carrying on business as a barrister, solicitor, notary public, conveyancer, physician, surgeon, oculist, aurist, medical electrician, dentist, veterinarian, civil or mining or consulting or mechanical or electrical engineer, surveyor or architect, for a sum equal to 25 per cent. of the said assessed value."

Our medical readers will understand that Clause (c) is selected and quoted because it particularly refers to physicians and surgeons, showing the rate of business assessment which they will have to pay.

The practical meaning of this legislation is that, with the exception to be noticed presently, every physician in Ontario occupying an office in a dwelling, will be obliged to pay a business assessment, based on one-fourth of the value of the dwelling and the land. For instance, if the house and land are assessed for \$4,000, then the physician, whose office is situate in the said house, provided that he is the owner or tenant of the said pro-

perty, shall have to pay a "business assessment" on \$1,000, which, being computed at a tax rate of 20 mills on the dollar, would be \$20 a year.

If he is an unmarried man, and rents one or two rooms in a dwelling or office building, in which he has no interest as owner, he shall pay the business assessment on a minimum valuation of \$250.

Section 4 hits the physician who has grounds attached to his residence. It reads: "Where any person mentioned in Sub-section 1 occupies or uses land, partly for the purpose of his business, and partly for the purpose of a residence, he shall be assessed in respect of the part occupied for the purpose of his business only, but this provision shall not apply to persons assessed under Clause (e) of Sub-section 1." Clause (e) includes physicians and surgeons.

Section 6 reads as follows: "Every person liable to assessment in respect of a business under Sub-section 1 shall not be subject to assessment in respect of income derived from such business."

"(7) Every person assessed for business assessment shall be personally liable for the payment of the tax thereon, and the same shall not constitute a charge upon the land occupied or used."

With the new method of taxing doctors, we are rather favorably impressed. It increases our municipal taxes, of course, probably doubles them, but then it clears away some rubbish from our field. By all means, let us have a "business assessment," and let us practise medicine on a business basis. Some time ago, a man in our hearing boasted that he could secure the services of any one of five reputable physicians of Toronto, inasmuch as he was a member, in good standing, of five different "sick-benefit" societies. The business end of medical practice looked rather small after hearing that speech. Neither was the horizon of clinical medicine enlarged thereby. If attacked by lobar pneumonia, the man of the five societies may, with great satisfaction and little expense, try Dr. A. for two days, Dr. B. for the next two days, Dr. C. for the fifth and sixth days, Dr. D. for the seventh and eighth days, and about the hour the crisis is due may call in Dr. E. Thirty years ago, it was the

proper thing for a Toronto physician to own, and pay taxes for, a good corner residence. He got his share of family practice, and had a big share of the accident surgery. All the latter goes to the down-town hospitals now. And that manifest injustice suggests a question. Do hospitals pay business assessments? No. They are not mentioned in any of the sub-sections of the tax law. Why not? They do not keep patients for nothing. Misanthropy is narrow; philanthropy is often silly; let us have business methods in medical practice.

We think that Dr. A. Macdonald and Dr. E. King, who represent the medical profession of Toronto in the College of Physicians and Surgeons of Ontario, have done well in bringing the "business assessment" before their constituents for discussion. We hope also that our representatives, together with other conferees, will continue their labors, and look further into the business interests of the Ontario medical profession. J. J. C.

FIRE PROTECTION IN HOSPITALS.

EVEN when sound in mind, well in body, and with the fleetness of foot of youth, the cry of "fire" is apt to strike terror to the stoutest heart. Not until one has heard that shrill cry float up six stories to a bedroom window, in one of Gotham's "Jacob's ladders," called hotels, and has participated in the scene that followed, can one realize in a measure the awfulness of a fire in one of our large hospitals, where helpless humanity has to lie and await assistance to make its escape to a place of safety. Since the horrifying disaster in Chicago recently, we as citizens have been awakening in regard to the fire protection we ought to have provided, and insisted upon by law, in all our public buildings, especially schools, churches, theatres, hospitals, and in our music hall and other places where people are crowded together. So far, the "powers that be" seem "fussily" idle, or idly busy about inspecting our theatres. As week after week passes, their intentions are good, but they are like the devout Methodist who, being frequently entreated by his creditors to pay up, said he always intended to do so, but the Lord kept hedging up his way. As physicians, let us arouse ourselves, and occupy our time removing the beam from our own eye ere we ask for the removal of the mote in

our brother's eye, by seeing to it that the hospitals, where we so gladly send our patients, are properly equipped with all appliances in case of fire, and, in the meantime, to be strictly truthful in telling of their present imperfections, in order that the public may have abiding confidence in our Institutions.

For years, the General Hospital has been alive to this awful danger, and has a system, if carried out, of good arrangements. The following details have been furnished us by Dr. Chas. O'Reilly:

"In Toronto General Hospital on every flat and in every corridor, from the basement to the attic, fire hose is kept, ready for instant use. Fire extinguishers and dozens of pails of water are also on every flat. A separate city fire alarm box is in the main hall, with speaking tubes and direct telephonic communication with every building and with every flat. Every official in the Hospital has a lantern at his bedside, and one of the engineers is always on duty, day and night, winter and summer. Coal oil is not used in the wards; only old-fashioned candlesticks being used by night-nurses, which from their shape and size, cannot be upset. The Hospital being, as it were, always awake, night as well as day, nurses like sentries pass on and off duty. The buildings are heated by steam and hot water. The Chief and his foremen frequently visit and inspect the Hospital and fire appliances, and pronounce it one of the best fire protected public institutions in the city. In the main hall lanterns, hose-keys, wrenches, crowbars, axes, ropes, pails and chemical fire kings are always ready, and it will be found impossible within the walls of the Hospital to hide yourself where a stream of water from a nozzle of a hose will not drive you out. The partitions in the main building are built of brick, and the corridors are large and wide, opening on open verandahs to east and west wings. The wide main centre stairways afford ample exit, and the two outside enclosed tower stairways from basement to attic in the main Hospital, although not noticed from the outside, are perhaps the best fire escapes the Hospital could possibly have.

"There is now on every side of the hospital block, a large double-headed hydrant, and the Wilton Avenue fire station is less than three blocks away, and connected directly with the institution by the special alarm signal box."

St. Michael's Hospital is also provided with fairly good facilities, but, after the visit of City Architect McCallum, will no doubt add a few improvements. (We may say that our two letters to the Hospital asking for detailed information still remain unanswered.)

Grace Hospital intends adding to its building, and putting in the latest inventions to render it fireproof. At present a direct fire alarm box, fire escapes on both sides of the building, pails of water, hose (which, we trust, is frequently examined) through the corridors, and chemical extinguishers, with a fire drill, said to be frequently practised by the nurses and employees, constitute the sum-total of this hospital's readiness in time of need.

The Western Hospital has a very poor outfit of fire "extinguishers," so far. It goes to one's heart to tell it, but with the shades of Washington's birthday still around us, and a souvenir hatchet in view, we dare not sign our christian name to a fairy tale, and really, as far as the sight of man goes, no fire escapes are visible on the outside of the old building. While we were told the nurses had ropes, and could easily convey the patients to verandah roofs, we fear the record would be: "The operation (of carrying them out, and tying them to ropes and letting them down) was highly successful, but the patients died shortly afterwards of heart failure." (Pity we do not live in Bible times.) This state of affairs at the Western Hospital is not the ideal state of things at all desired by the staff and management. It is simply owing to lack of funds, we understand. Will not some one of our sudden millionaires come to the rescue, and perhaps, in a golden to-morrow, when he knocks at the door of the Home of Everlasting Health, St. Peter may let him in.

W. A. Y.

INSUFFICIENT REPORTING OF TYPHOID FEVER.

At the first quarterly meeting for the present year, of the Provincial Board of Health, the ex-Deputy Registrar-General for Ontario, Dr. Bryce, in reply to a question, acknowledged that the morbidity and mortality figures of typhoid fever, published in Monthly Bulletin No. 10, for December, 1903, were misleading. For instance, the cases of typhoid fever reported for Ontario in December were 120, and the deaths from that dis-

case 24, or an estimated mortality of 20 per cent. The total cases of typhoid fever reported during the year 1903 were 1,012, and the deaths 298, or a mortality of about 30 per cent. If correct, these figures would indicate that the typhoid fever reported in Ontario was of a peculiarly deadly character. But the figures are not correct, that is to say, Ontario physicians do not report their typhoid fever cases, and the published number for the year, viz., 1,012, is absurdly below the number of cases which actually occurred in the Province during the time mentioned. Assuming that the published mortality, 298, represents 10 per cent. of the cases of typhoid fever occurring in Ontario during 1903, then there were 2,980 cases, instead of 1,012.

Why are cases of typhoid fever not reported in Ontario? We do not undertake to answer the question, and would leave it to our readers. One thing seems quite evident; if a physician does not report his cases of typhoid fever, in common justice to others, he should give minute instructions regarding the disposal of the excreta of his typhoid patients, and should endeavor to enforce his own rules. The water-borne origin of typhoid fever is now generally received. Dr. Schuder, who publishes a table of 650 cases of epidemic typhoid fever, shows that in 70 per cent. the vehicle of the disease was water, in 17 per cent. milk, in 3 1-2 per cent. foods of all kinds, and in 9 1-2 per cent. other factors. The two important factors are drinking water and milk, amounting together to 87 per cent. of all the etiological factors. Why do not the Ontario physicians report their cases of typhoid fever?

J. J. C.

EDITORIAL NOTES.

No Anti-Spitting By-law in Toronto.—An anti-spitting by-law has been discussed in the Toronto Council, but has not been passed. Aside from the disgusting appearance of deposits of sputum in public places, the strongest argument against indiscriminate expectoration on the streets or public places is the danger to the public health from the sputa of some 1,300 consumptives in this city. There is much to be said in favor of protecting people from the microbes of tuberculosis and it is quite reasonable to ask that every person known to have pulmonary or laryngeal tuberculosis should use a spit-cup. Viewed in the light of preventive medi-

cine, a consumptive patient who does not use a spit-cup ought to be quarantined as one whose presence is dangerous to the public health. The use of the spit-cup, in public and in private, should also be obligatory on persons affected with diseases of the air passages, like la grippe and pneumonia, because the infection of such a disease is propagated to others by the expectoration. For other than scientific reasons, efforts should be made to secure the enactment of an anti-spitting by-law: but we need not be surprised if the efforts should prove vain. In New York it is reported that magistrates fine the spitters when brought before them; but in most American cities there is no law against expectorating in public places, or no attempt is made at enforcing the law. Naturally the police are responsible for the carrying into effect of such a law. A policeman may, with propriety, hand out warning cards to first offenders against the anti-spitting by-law, if he does not offend against it himself. If he be given to the use of tobacco, or if he have a cold, his efforts to provide hygienic information will be likely to provoke a smile.

Useful Scientific Drudgery.—A medical practitioner, who is possessed of good powers of observation, and also of comparison, will, for the most part, form accurate conclusions about the diseases he is called upon to treat. Cases do occur, however, in which an off-hand diagnosis cannot be made with certainty from clinical evidence, and it may be that in some of these cases a prompt diagnosis is needed. For instance: A clinician well acquainted with the physical features of tonsillar disease will, in the majority of instances, correctly diagnose a disease of the tonsil after inspection. In some instances he will be in doubt. Now, can he consistently remain in doubt, and yet continue to treat a case of tonsillar disease just as though it were lacunar tonsillitis, when he is dissatisfied with his own opinion and fears that the disease in question may be diphtheria, modified by appearing in an individual (a young man, for instance) who has a large power of resistance? Certainly not. A typical, grayish-white membrane may not be present at the stage when a practitioner looks into a patient's throat, and yet a swab, taken from that very throat, may reveal diphtheria. The membrane may be clean gone and nought suspicious remain, after ten days' illness, but a slightly puffed, edematous condition of the epithelial sur-

face of the fauces. There may not be soreness, ulceration or enlarged cervical glands, and yet a swab, taken from such a throat, would reveal diphtheria. Scientific medical work may be drudgery; but the medicine of to-day could not raise its head and honestly look mankind in the eyes without it.

To Snatch or Not to Snatch.—The topic of docking the supply of "anatomical subjects for the medical colleges" was discussed in the Ontario Legislature, Feb. 26th, '04, on the second reading of the bill of Mr. Hislop, of East Huron, leaving it to the discretion of a warden of a municipality as to whether an unclaimed body of a deceased inmate of a house of refuge or house of industry shall be turned over to the Inspector of Anatomy. The present Anatomy Act provides that, if a dead body is not claimed within twenty-four hours, it is the duty of the authorities to hand it over to the Inspector of Anatomy to be used by the medical colleges for dissecting purposes. Mr. Hislop condemned this action. If an inmate of an institution had some friends outside, his body was given decent burial; if he had no friends, his body was turned over to the medical colleges. Dr. Willoughby characterised Mr. Hislop's objection as sentimental. The medical colleges, he said, required anatomical material, and if it were not provided legally, the medical students would be compelled to rob the graveyards. Drs. Barr and Reaume agreed that Mr. Hislop's bill would result in a return to body-snatching. The bill was then read a second time. We may, therefore, conclude that henceforth, as the undertaker follows the medical profession in Ontario, so the medical student will follow the undertaker.

Instruction of School Teachers in Physiology and Hygiene.

School teachers of the present era, in addition to a scholastic training, are expected to have a fairly good elementary knowledge of the indispensable truths of physiology and hygiene, which they should apply in practice, and also impart to their pupils. Among other bits of useful knowledge, teachers should be taught by a physician how to suspect that a child has adenoid vegetations (open mouth, deafness, nasal obstruction). Teachers should show their pupils the dangers of thrusting pencils or penholders into the ears of their com-

panions. They should be aware of the risk of violently pulling a pupil's ears, and they should instruct pupils how to blow the nose, using only one nostril at a time. An idle, inattentive, backward pupil is sometimes a sick child, whose hearing is defective, because he has adenoid vegetations, which would be revealed by a rhinoscopic examination. He is a candidate for repeated attacks of otitis and deafness, with their consequences, from which a timely intervention by an aurist would save him. The teacher who recognizes defective hearing in a pupil should advise his parents to take him to an aurist.

The Curative Effects of X-rays in Cancer.—According to Dr. Von Bruns, of Tübingen, the curative effects of X-rays in cancer are simply due to the fact that these rays assist and intensify the spontaneous tendency to degeneration, which is naturally present in cancer cells. Virchow said: "In itself a cancer is not a durable tumor. Its cells are endowed with weak and fragile characteristics which reduce the duration of their vitality to a very limited period, and soon cause them to undergo a series of regressive changes. If we could succeed in extending, at the very first, these changes to all parts of a cancer, and in preventing the formation of accessory nodules, we would certainly obtain a positive cure of cancer."

Absorption of Fat from the Small Intestine.—Drs. Ramond and Flandrin reported to the Society of Biology, Paris (Jan. 23rd, 1904), on the much-discussed question of intestinal absorption. The current opinion among physiologists is that fats are first saponified and then absorbed. These reporters appear to confirm the truth of this opinion by showing that glycerin, which is formed by the breaking up of fats, is found in a notable quantity in the small intestine of a dog after a meal. This glycerin is absorbed by the vena portæ, and partly retained in the liver, in which it forms combinations with fatty acids, or is changed into another compound. On the one hand, therefore, it seems that the portal circulation is a much more considerable route for absorption than is generally believed, and on the other hand, that the liver plays a considerable part in the making of fat.

A. J. C.

PERSONALS.

DR. R. D. RUDOLF, of Bloor St. West, has received the appointment of Surgeon to the Toronto Light Horse.

DR. DANIEL H. MUIR, one of the best known members of the medical profession in Nova Scotia, died at his home in Truro, on March 11th.

CLARK—At the Asylum residence, on the 12th March, Jennie E. Gissing, aged sixty years, wife of Dr. Daniel Clark, Superintendent of the Asylum.

THE foreign editors of *The American Practitioner and News* say "Adieu" to its readers in the January issue, and greet with enthusiasm those upon whom their mantle is to fall.

DR. MITCHELL, of the Toronto Asylum staff, who has been appointed to take charge of the new asylum for epileptics at Woodstock, and who left last month for England to look over the institutions there preparatory to assuming his new duties, was tendered a farewell by the staff of the Queen Street institution. The affair took the form of a dance, and a very pleasant evening was spent.

DR. M. T. BRENNAN, gynecologist of Notre Dame Hospital and a professor of Laval University, Montreal, died on March 12th, of pneumonia. Dr. Brennan was a native of Montreal and a graduate of Laval, with which he was identified as a professor for fourteen years. He was connected with Notre Dame Hospital for twenty-two years. He leaves a wife and five children. Three weeks ago two of his children died. Dr. Brennan was forty-two years of age.

His Yearn.—Poor Feebles (about to be operated on for appendicitis): "Doctor, before you begin I wish you would send and have our pastor, the Reverend Mr. Harps, come over." Dr. Cutter: "Certainly, if you wish it, but ah!—." Feebles: "I'd like to be opened with prayer."—*Life*.

❁ News of the Month. ❁

A MUNICIPAL TUBERCULOSIS CLINIC.

THE consensus of opinion among the profession as to the Municipal Tuberculosis Clinic about to be opened in New York City by the Health Department of that city, seems to be that the idea is a splendid one, and, with some modifications, just what we ought to have in Toronto.

The clinic is for the diagnosing and treatment of pulmonary tuberculosis. At the last meeting of the Board of Health, Dr. Sheard recommended the City Council to utilize the \$50,000 voted by the ratepayers on January 1st for the establishment here of a somewhat similar, though not so extensive, institution.

The New York institution is described as follows in the *New York Times*:

“It will occupy a building immediately adjoining the headquarters of the health department, and will include a registration office, two waiting rooms, an X-ray room, a throat department and two clinics with examination rooms.

“The object of this institution is to aid in the most practical of ways the effort to check the spread of the great white plague, which everywhere in this and most northern countries contributes most to the death-rate, and most heavily handicaps the living by swelling the multitude of helpless and dependent invalids. It is now admitted by all whose views are entitled to respectful consideration that pulmonary tuberculosis is curable and eradicable, and that under favoring conditions nature will usually effect a cure in incipient cases. The first object of the Board of Health clinic is early recognition and correct diagnosis of cases of consumption. This is often an impossibility for the poor, who can afford only casual medical advice, and that not always the most skilful. At the clinic the work will be directed by experts. Not only will careful physical examinations be made, with sputum cultures, but X-ray tests will assist in early and correct diagnosis.

“Patients applying for treatment will not only receive it, but will be given circulars of information in whatever language they can best read, containing exact and intelligible instructions as to precaution necessary to be taken to prevent the infection of

others. Sputum cups and proper food for the upbuilding of the system will be supplied without charge to needy patients. Indigent and ambulatory patients discharged from the public institutions of the city will be looked after at their homes and places of occupation by trained nurses constituting a special corps, and the co-operation of charitable organizations has been secured to supply food, fuel, ices, etc., where needed. One of the chief duties of these nurses will be to look after the children in the homes of consumptives, and do all that can be done to prevent their infection. When necessary those unable to remain at home will be provided for in hospitals and those promising recovery will be sent to out-of-town sanatoria."

There is little doubt that the ablest practitioners in the city would be glad to give their services to such a clinic in Toronto. This city should not attempt to treat patients in their homes; that would be too great an undertaking. Dr. Sheard thinks that the municipality should treat the disease from a sanitary standpoint, and should hand over to the Gravenhurst sanitarium cases that needed sanitarium treatment. In that way much could be done to prevent and control the disease. The city should erect the necessary building in Riverdale Park, near the Isolation Hospital. The \$50,000 would erect and equip a building capable of accommodating 50 patients.

Such an institution would be valuable also in furnishing the best advice and necessary assistance to persons in the initiatory stages of the disease, or persons with an inherent tendency towards pulmonary trouble, who, on account of the cost, could not at present secure such advice.

A COURSE FOR TRAINING NURSES AT TORONTO TECHNICAL SCHOOL.

THE Toronto General Hospital and the Toronto Technical School have entered into an arrangement by which young women intending to become nurses can qualify themselves for securing an entrance into the training school of the Toronto General Hospital by first undergoing a course of preliminary training in the Technical School. To quote the words of a circular which has been issued by the Toronto General Hospital on behalf of its training school: "Intending applicants to the Training School for Nurses are notified that, after this date preference will be given to candidates who hold a certificate of the preparatory course, provided they are otherwise eligible." The preparatory course referred to consists of two terms of three months each, beginning this year on the 4th of January, and ending June 15th. The classes are held from nine in the morning till 3.30 in the afternoon, daily,

in the Technical School, and the various branches in which intending nurses receive instruction are anatomy, physiology, medical chemistry, hygiene, bacteriology, dietetics, cookery, household economics, English language and vocal expression. Miss Davidson, the head of the domestic science branch of the Technical School, is a graduate of the Pratt Institute, Brooklyn, and the new course of training in the Technical School in household economics generally, is modelled after the course of training in the Pratt Institute.

This is the first course of preliminary instruction for nurses undertaken in Canada. Preliminary training for nurses, however, is now firmly established in both Great Britain and the United States. As a rule, the instruction is given in connection with the training schools, but not in the same building. This is true of the Royal Infirmary, Glasgow, which has an admirable preparatory course, not, however, conducted in the Infirmary itself. In Boston and Rochester the preliminary training is given outside of the hospital, and the same is the case in Philadelphia, where the instruction is given in the Drexel Institute. For New York the same work is done in the Blackwell Island Training School for Nurses, and in Chicago the Presbyterian Hospital, like the Toronto General, is at the present time beginning its course of preliminary training. The course for the Toronto General follows that adopted by Boston and Philadelphia. The one exception to the general rule of a course in preliminary training taken outside at the hospital is at Johns Hopkins, Baltimore, where the nurses enter first on a six months' preparatory course, during which they are not allowed to enter any of the wards, but receive a thorough training in the chemistry and preparation of foods, and in the art and science of keeping a hospital clean, using the word in its highest medical meaning. The special advantage of a preliminary course for nurses is that by the time they arrive at the work of nursing proper they understand not only the terms employed, but know how to perform such of their duties as are related to the proper diet of the sick. The question of the success of preliminary training for nurses in Toronto has already been answered to a certain extent, for already there are six nurses in training at the Technical School, applicants for the class in the Toronto General Hospital, which enters into training there next fall.

The Association of Superintendents of Nurses' Training Schools in the United States and Canada intend ultimately to establish a college for preparatory and post-graduate work among nurses, which will be entirely under their own direction, to be established in some part of the United States, but open to nurses trained in Canada. The association has already applied for incorporation with this object in view.

FIFTY THOUSAND DOLLARS FOR SANITARIUM PURPOSES.

DR. SHEARD will advise that the \$50,000 to be provided by the city for sanitarium purposes be spent in the promoting of the work of the association that can give the city the best guarantee regarding the accommodation of patients.

"Now that the Board of Control have left this matter to me," said Dr. Sheard, in an interview on the subject, "I will leave no stone unturned to find out which of the anti-consumptive associations can do the very best for the city. As a principle, I am not in favor of the city building hospitals and then maintaining them, but I make an exception when it comes to hospitals for the treatment of contagious diseases. I am satisfied with the management of our Isolation Hospital, and think that from the economic standpoint there is no better managed institution.

"If the National Sanitarium Association can provide accommodation for a sufficient number of patients by the expenditure of this \$50,000 and grant the city the power to say who shall go into the wards set apart for the city's cases, then we are prepared to consider their representations to the city, but one condition I will insist upon, and that is this, that the Medical Health Officer shall not be dictated to by anyone as to who shall occupy the wards set apart for city patients.

"If the Anti-Consumption League can guarantee to the city a better return for the \$50,000 than the National Sanitarium Association, they will receive greater consideration from me, but it must be clearly understood that this is a matter of business with me, and it is the city's interest that must take first place in considering this question.

"Unless I receive a guarantee from one of these associations that is entirely satisfactory to myself, I will not recommend that the Board place the \$50,000 at the disposal of either of them, but I will recommend other means whereby this money can be spent to the best advantage to the city."

"Would you favor a municipal sanitarium?" the doctor was asked.

"I am not prepared to say whether that would be my recommendation just now," replied the doctor.

"How many patients would you want accommodation for?"

"Somewhere between fifty and seventy-five, but I would not state the number definitely now, for good and sufficient reasons."

"What would the city pay for their patients?"

"\$2.80 per week."

"Would the city have anything to do with the management of the institution getting the \$50,000?"

"Not any more than having the authority to say who the patients are that shall be admitted into the city's wards."

"How do you intend to proceed now?"

"I will give the representatives of both the National Sanitarium Association and the Anti-Consumption League an opportunity of appearing before me and stating what they will do for the \$50,000, and upon their guarantees I shall base my report to the Board of Control."

BURROUGHS WELLCOME & CO. v. THOMPSON AND CAPPER.

MR. JUSTICE BYRNE delivered judgment on December 14th in an action of some interest to medical men brought by Mr. H. S. Wellcome, trading as Burroughs Wellcome & Co., against the firm of Thompson & Capper, druggists. The object of the action was to restrain the defendants from passing off goods as of the manufacture of Burroughs Wellcome & Co., which had not been manufactured by them, and particularly from selling, or offering for sale, any such goods under the name "tabloid" or "tablets" and from infringing these the registered trade-marks of the plaintiffs. Evidence was given in the course of the trial of the selling of goods not of the manufacture of Burroughs Wellcome & Co. to persons asking for tablets, and bearing prescriptions in which further specification of the manufacture demanded was afforded by the use of the initials B. W. & Co. by the prescriber. As to this being wholly unjustifiable no question could arise, but the real claim of the plaintiffs was for the declaration of their exclusive right to the use of the words "tabloid" and "tablets," without any addition, as indicating goods of their manufacture. The establishment of such a right by them was denied by the defendants, and behind this lay the question whether the words "tabloid" and "tablets," registered by the plaintiffs as their trade-marks, were to remain upon the Trade-marks Register or were to be struck off in accordance with the defendants' cross-action to that effect. The judgment of Mr. Justice Byrne was in favor of the plaintiffs on all points. He granted them an injunction against the defendants independently of the question of registered trade-mark. With regard to the trade-marks he refused to order their removal from the register, and he granted the plaintiff firm a certificate to that effect. The case has some important professional bearings. One of the main grounds of attack on the trade-mark "tabloid" was the allegation that a proportion of the public did not know that the word was the property of a firm. It was shown in evidence by the defendants that Burroughs Wellcome & Co. advertised only to the medical pro-

fession and pharmaceutical trade, no facilities therefore being given to the public for gaining knowledge of the trade name in its proprietary connection. It was also shown that some dispensers, when supplying "tabloids," have removed the makers' label and affixed their own—a still more obvious reason for the ignorance of the public as to the property of Burroughs Wellcome & Co. in the word "tabloid." There are few circumstances in which the dispenser is entitled to exercise his judgment concerning a prescription, but the substitution of one drug for another, or of imitations for proprietary articles of accepted reputation, is not one of those circumstances. The medical man is accustomed to depend upon the pharmacist for a faithful discharge of the obligations of the written prescription, a consideration which no doubt determined the attitude of certain leading members of the pharmaceutical profession, and the President, Vice-President, and several members of the Council of the Pharmaceutical Society appeared to give evidence in favor of Burroughs Wellcome & Co. For the reasons implied above we congratulate Burroughs Wellcome & Co. upon the result of the action. Their intent to approach the public through the medical profession only was used against them in a manner which could but enlist for them the sympathies of all practitioners.—Editorial Note in *The Lancet*, December 19th, 1903.

MR. W. M. GRANT'S PROMOTION.

WE beg to congratulate Mr. W. M. Grant, who for years has represented the firm of Parke, Davis & Co. in Toronto, and has done exceptionally good work in forwarding the interests of their preparations among the profession in Ontario, on his promotion to the position of manager of the Canadian laboratories at Walkerville, Ont. We feel that the Detroit office has made a good choice in appointing Mr. Grant to be chief of their Canadian business, as not only is he fitted for the work, and well thought of by the profession, but we feel that he will prove a worthy successor to Mr. Swift.

Mr. Grant was born in the village of Waterdown, Ont. He is the son of Rev. R. M. Grant, D.D., now of Orillia, and has brothers, Mr. Geo. D. Grant, a lawyer in Orillia, recently elected in his thirty-first year to represent North Ontario in the House of Commons, and Mr. R. A. Grant, of the law firm of Kerr, Davidson, Paterson & Grant, Toronto.

Mr. W. M. Grant's education was begun in the common schools, and completed in the High Schools of Ingersoll and Orillia. His apprenticeship to pharmacy was served with Mr.

H. Cooke, of Orillia, which he began in 1882, and graduated in the fall term of 1886, after which he accepted a situation with Mr. J. D. Matheson, of Toronto, with whom he stayed for some three years, and then went with the firm of Lyman Bros. & Co. in 1890, taking the position of city traveller for two years, afterwards covering the ground of Eastern Ontario for another period of two years.

On the 1st of April, 1894, he accepted a position with Parke, Davis & Co.

During the time since that date to the present he has represented the house in almost every part of Canada east of Walkerville, and filled every position with such efficiency and satisfaction to the firm that on the selection of Mr. W. F. Whelan to take charge of the British sales department, he was advanced to the position of senior travelling representative for Canada, headquarters in Toronto, with the cities of Toronto, Hamilton and London as his special sphere of labor.

In the adjustment of the affairs consequent on the removal of Mr. Swift to the general manager's chair in Detroit, it was decided to divide the work and responsibility of his late position.

This was accomplished by placing Mr. Grant in charge of the business department, and advancing Mr. R. H. Revell from the position of laboratory superintendent, which he held under Mr. Swift, to that of laboratory manager, in complete control of the manufacturing department.

SUPPURATING APPENDICITIS OPENING INTO THE BLADDER.

JUAN G., a Spanish merchant, 37 years old, with evident syphilitic antecedents, began to suffer about two months ago acute pains in the right iliac pit, while a tumefaction was observed in that region. He became an inmate of a clinic of this city, where his case was diagnosed as malignant neoplasm. After remaining about twenty days in said clinic, the patient decided to leave for Spain; in the meantime, he stopped at a hotel here. While there he was taken with violent fever and ague, with a temperature of about 41 degrees C., and the first micturition following this attack did show the presence of a great quantity of pus.

Dr. Parra, who was attending the patient, did me the honor to ask me to assist him. I called on him the night after the evacuation of pus had occurred.

The first symptom to which my attention was called upon examination was the dimension and hardness of the liver, with swellings, the massiveness of which continued uninterruptedly in

connection with the massiveness of the iliac pit, in which region (the right iliac pit) an accentuated muscular resistance was observed, though that region instead of being swollen presented a depression, at the bottom of which the rim of the hepatic gland could be felt by the hand. The temperature was 38 degrees, the pulse beat between 80 and 90, and the general condition of the patient was rather satisfactory.

The diagnosis offered no doubt in our opinion: Suppurating appendicitis with evacuation into the bladder (the urine which was shown to us was extremely fetid and mingled, and it did contain a large quantity of pus) and syphilitic cirrhosis of the liver.

We advised the patient to consent to be operated upon, which he did. On the following day an incision of about seven centimetres was made into the middle of the depression observed in the iliac pit. We rapidly reached a perfectly defined cavity, which contained a little pus mixed with mucosities. We washed out the cavity with Hydrozone and plugged it with iodoform gauze. On the following day, when we dressed the wound, upon careful examination of the cavity, we did not find any connection with the bladder, but we could extract the appendix which was affected by feces.

A complete cure was accomplished in a month, and during that time the liver decreased considerably in volume. Since the third day of the operation antisyphilitic treatment was followed.

The communication between the cavity of the abscess and the bladder healed after twelve days of treatment.—*Exchange*.

INTERNATIONAL ELECTRICAL CONGRESS.

ESPECIAL efforts are being put forth to make the department of electricity the most striking and attractive feature of the Universal Exposition of St. Louis. In furtherance of this idea an International Electrical Congress is to be held from September 12th to 17th, the week preceding the session of the International Congress of the Arts and Sciences.

The last International Electrical Congress was held in 1900, in conjunction with the Universal Exposition at Paris.

The Congress will be divided into the following sections:

General Theory.—Section A, Mathematical, Experimental.

Applications.—Section B, General Applications; Section C, Electrochemistry; Section D, Electric Power Transmission; Section E, Electric Light and Distribution; Section F, Electric Transportation; Section G, Electric Communication; Section H, Electrotherapeutics.

It is proposed to invite prominent men in various parts of the world to contribute special papers on subjects represented in the various sections and their subdivisions.

Conventions will be simultaneously held, in connection with the Congress by various electrical organizations in the United States. It is proposed that each section of the Congress may be able to hold its meeting under some plan of conjunction with the organization or organizations devoted to the progress of the work selected by that section. Steps have already been taken to enlist the sympathy of the various organizations, with a view to perfecting the details of co-operation at a later date. Prominent among the organizations from whom co-operation is expected are: The American Institute of Electrical Engineers, the American Electrochemical Society, the National Electric Light Association, the Association of Edison Illuminating Companies, the Pacific Coast Transmission Association, the American Electrotherapeutic Association. It is also hoped to secure the participation of American scientific societies.

The Universal Exposition at St. Louis has signified its intention of affording ample facilities for the accommodation of the Congress in its halls on the grounds of the Exposition.

Elihu Thomson, A.M., Ph.D., of Lynn, Mass., is President of the Committee of Organization; A. E. Kennelly, Sc.D., F.R.A.S., of Harvard University, is General Secretary, and William J. Morton, A.B., M.D., of New York, Chairman of the Electrotherapeutic Section.

“CLEANLINESS IS NEXT TO GODLINESS”

HYGEIA, the goddess of health, was on March 8th in the ascendant at the Normal School, when Dr. E. Lelia Skinner delivered an extremely interesting address on the wholesomeness of water, air and sunshine, and their kinship to godliness.

Getting right to the heart of her subject from the beginning, Dr. Skinner divided hygiene into three parts, applicable, namely, to the home, the person and the dietary. Paying a friendly tribute to the excellence of the work done by municipal authorities in promoting the virtue of cleanliness, Dr. Skinner felt bound, however, to confess that much yet remained to be done in the matter of housing the poorer inhabitants of the poor districts. Those who lived in comfort could hardly realize what she, in the course of her professional avocations, had learned to her sorrow, and there were yet districts in our environs where fresh air and sunshine were, to say the least, minus quantities to many a poor family.

But it was not only in the home that the science of hygiene, or its evidence, was absent. Even the street car, the meeting hall, the church and chapel came under the ban of the priestess of Hygeia, and much might still be done for the greatest happiness to the greatest number in this respect. And going deeper into the ramifications of her subject, Dr. Skinner became the unconscious apologist of spring cleaning, as necessary a process in the routine of domestic life as the morning tub to the man who wants to feel that he lives.

It is with the mother that it rests to see that her child early learns to love pure water and the golden sunshine, so necessary to its budding growth; but, and it was a cogent point, the aspect of moral sunshine in the child's life was as much to be considered as the cosmic.

The doctor did not spare her own sex in the matter of dress, and her condemnation of the trailing skirt, that vehicle of a multitude of diseases mankind is heir to, was as wholesale as it was wholesome. Clearly, according to Dr. Skinner, the best practical *summum bonum* for the masses is the philosophy of cleanliness in person, home and dietary.

A DISPENSARY IN QUEEN'S PARK FOR THE TREATMENT OF CONSUMPTIVES.

At Government House, on March 14th, plans were begun for furnishing the Toronto Free Hospital for Consumptives, now almost completed at Weston. His Honor the Lieutenant-Governor presided, and there was a fair attendance. Addresses were delivered by Messrs. W. J. Gage, Chairman of the Executive Committee of the National Sanitarium Association; Rev. P. C. Parker, the travelling secretary; Dr. J. H. Elliott, of the Muskoka Cottage Sanitarium, and Dr. C. D. Parfitt, of the Muskoka Free Hospital.

The most important announcement made was that a site had been selected near the university for a dispensary building. From this building free medicine will be dispensed for consumptives. A staff of nurses will be maintained. Clinics for students will also be held in it.

The reports showed that the Association has spent \$400,000 on its work, of which \$180,000 has gone into the building fund. One thousand patients had been treated, and the remarkable fact that of thirty-two consumptives who were cured five years ago, thirty-one were living to-day, was greeted with applause. The Toronto Home will be under a separate board of trustees.

It was decided that steps should be taken immediately to

raise funds for furnishing the Toronto hospital, which will be used for the care of advanced cases of consumption. Hon. W. A. Charlton was named as convener of a large committee appointed. Mr. H. C. Hammond was elected as Treasurer, and Mr. J. L. Hughes as Secretary.

A resolution, moved by Mrs. Torrington and Mrs. Blewett, expressed approval of the undertaking, and promised aid in support of the furnishing and equipment. Another resolution, moved by Messrs. J. L. Hughes and H. P. Dwight, recommended the holding of a bazaar to secure funds for the work.

FALLACIES IN MEDICINE.

THE final meeting of the Medical Society of the University of Toronto for the current university year was held on February 20th, in the college building. The chief items on the programme were addresses by Drs. Fotheringham, Primrose and D. J. Sweney. Dr. Fotheringham dealt with some of the fallacies of ancient and modern medicine. He noted some of the absurdities of old-time medical lore, when necromancy and witchcraft of various kinds were the stock-in-trade of the healers of disease. Even down to the time of the Stuarts and Queen Anne it was believed that some diseases could be healed merely by the touch of the sovereign's hand. Over 100,000 subjects of Charles II. were thus "healed" of physical ills. Dr. Fotheringham also referred to some fallacies of homeopathy, and to the evils of relying on patent medicines to effect cures. The medicines themselves might be all right, he said, but nine times out of ten the man who took them made a wrong diagnosis of his case.

Dr. Sweney spoke on the subject of the student's relation to the university. He urged that university students should take a larger interest in political life, thus making themselves and the university a much greater power in the land. He referred to the fact that while the Government was willing to spend many thousands of dollars in hunting down a single murderer, yet it was unwilling to spend a few thousands to equip research laboratories to discover means of saving life.

Dr. Primrose's address was connected with anatomical subjects, and was illustrated with lantern slides. The president of the society, Mr. F. J. Sheahan, presided, and musical selections were interspersed by Messrs. Schlichter, Clark and Rutley.

ITEMS OF INTEREST.

Tour of Health Inspection in Mexico.—Early in February a party of health officers from Louisiana and Texas will start on a two weeks' trip of inspection through Mexico.—*Med. Record.*

Walkerville Honored Him.—On the 8th of March the people of the town of Walkerville presented ex-Mayor E. G. Swift with a magnificent \$400 hall clock as a mark of recognition of services rendered the town in the capacity of Chief Magistrate. Mr. Swift has just moved across the river to Detroit to assume the management of the American laboratory of Parke, Davis & Co.

International Electrical Congress.—An International Electrical Congress is to be held in St. Louis in conjunction with the Universal Exposition. All the papers to be read at the Congress are to be specially invited from well-known writers in various parts of the world. The Committee of Organization has extended an invitation to Dr. Charles R. Dickson, of Toronto, to contribute a paper to be read in the Electrotherapeutic Section of the Congress.

Detroit the Centre of the Pill Industry.—According to Leslie's *Monthly* Detroit is the centre of the pill industry. About 1,700 varieties and 4,000,000,000 pills are made there annually, and this is 60 per cent of the national output. The annual consumption averages forty pills for every person in the United States, and the business is growing rapidly. Next year we are booked to take forty-eight. Who says that the pill is going out of fashion?—*Medical Standard.*

Disinfection for German Libraries.—The Berlin municipal authorities have decided to make an attempt to exterminate the microbes in the public libraries, Prof. Koch having called attention to the danger of spreading infectious diseases through books loaned indiscriminately from libraries. A plan for attacking the microbes will be submitted to the Library Committee of the Municipal Council on February 2nd. It is intended to adopt some method of disinfecting books after their use.—*Med. News.*

Convalescent Home for the Orthopedic Hospital.—Through the benefaction of Miss Emily A. Watson, the New York Orthopedic Hospital will soon open a \$100,000 branch at White Plains, which will be both a home for convalescent crippled children and a school for their industrial education. Miss Watson has also promised to endow the new home with a fund of \$250,000, so that the entire amount of her gift will be \$350,000. The institution will be known as the Country Branch and Industrial School.

A Remarkable Case of Zoophilia.—A millionaire farmer of New Brunswick is having her live stock killed by anesthetics duly administered under the direction of a veterinarian. She is prominent in the Society for the Prevention of Cruelty to Animals, is a vegetarian and fond of all animals. Fearing that the animals belonging to her at present might fall into the hands of inconsiderate people, she has decided to put an end to the existence of her live stock in a gentle and scientific manner, as stated.—*Journal of Mental Path.*

A Private Ambulance.—With commendable business foresight, the F. W. Matthews Co., 457 Queen Street West, Toronto, have installed a private ambulance, which they place at the disposal of the profession. The company are prepared to answer calls at any hour, day or night, for the removal of cases (any but contagious) from the home to the hospital, or *vice versa*. So long as they are within the city limits the charge is but \$2.00 per call, and for outside the city limits the charge is in proportion. The ambulance is very handsome and is in every respect up-to-date. It runs on rubber tires, is electrically lighted, carries an emergency kit, and is furnished with a pneumatic mattress.

Anatomy at "Queen's."—Queen's medical faculty has practically decided to place the subject of anatomy on the same basis as those of biology and bacteriology, by appointing a demonstrator, who will give his whole time to the subject and not enter into general practice. This matter was brought before the faculty by the Dean, Dr. J. C. Connell. A notice has been posted at the medical college regarding the faculty's intention, and applications are invited for the position from final year students, one of whom will be chosen and expected to continue the study of anatomy as a specialty, particularly along comparative lines. Such demonstrator would have the standing of lecturer, and in time would be given the professional chair.

The Original Sherlock Holmes.—The original Sherlock Holmes, so says Dr. Harold Emery Jones, in *Collier's*, was a medical man and, stranger yet, a medical editor. Dr. Jones was a classmate and friend of Dr. Conan Doyle in the University of Edinburgh, and while both were students in that institution they often wondered at the remarkable powers of deduction possessed by Dr. Joseph Bell, who as surgeon at the Edinburgh Royal Infirmary, was one of the students' idols. For twenty-three years Dr. Bell was editor of the *Edinburgh Medical Journal*. The way in which he could at the first interview and almost at a glance unfold to his astonished patients their habits, their occupations, nationalities—even their names, seemed decidedly uncanny, until he explained his methods, which were those of Doyle's

great detective. His perceptive powers were only less remarkable than his capacity for deduction.

Antitoxin Plant in Chicago.—It is said that a municipal antitoxin plant will soon be established in Chicago. Dr. Preble, President of the Chicago Medical Society, has urged that the matter be laid before the City Council. Some of the members of the City Council who have been interviewed in regard to the matter have expressed their interest in the establishment of such a plant, and it is believed that something will be done. Dr. Ludwig Hektoen, Secretary of the Memorial Institute for Infectious Diseases, has been authorized to say that if a fund should become available, the institute will furnish space for a laboratory and grounds for stables, provided it is not attempted to furnish serum for any State other than Illinois.—*Med. Record*.

A Psychiatric Institute in Paris.—The Ecole de Médecine of Paris has under its auspices a new teaching department, in which theoretical and practical instruction will be given in 'psychiatry. Advanced students and physicians, attending regularly the courses of legal medicine and psychiatry, and passing successfully in the same, will be granted special diplomas. The name of such a diploma is *Diplome universitaire de médecine légale et psychiatrie*. Attendance of lectures and clinics is obligatory during two semesters. Candidates for this diploma are examined in medico-legal medicine, properly speaking, and in medico-legal psychiatry. Professors Joffroy, Brouardel, Dr. Paul Garnier and their associates are in charge of the various branches of teaching in the Institute. Medical persons attending the above-mentioned course of study, but unwilling to submit to examinations, will be granted certificates of attendance.—*Journal of Mental Pathology*.

A Cure for Rheumatism.—The editor of the *Gazette Medical de Paris* says: "When we were an interne in the Hotel-Dieu at Nantes we used to see the janitor in charge of the amphitheatre and autopsy-room take some of the fat from the cadavers and melt it down into loaves. We asked him why he undertook this work. He replied that he sold this 'mummy fat' (*graisse de momie*) quite dear, to old women of the city, this substance being employed by them in the cure of rheumatism. This custom is well known in France. The country people in some sections use the fat of criminals, bought of the executioner, for rheumatism and *ecronelles* (suppurating tubercular glands of the neck). A Vacquerie tells that during the St. Bartholomew massacre, at Lyons the apothecaries advertised for the bodies of six protestants—the fattest—from which to extract the fat. Laisnel de la Salle wrote that 'Christian fat' was a sovereign remedy in certain sores and divers pains."—*Medical Standard*.

The Physician's Library.

BOOK REVIEWS.

International Clinics. A Quarterly of Illustrated Clinical Lectures and especially-prepared Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otolaryngology, Rhinology, Laryngology, Hygiene, and other topics of interest to students and medical practitioners, by leading members of the medical profession throughout the world. Edited by A. O. J. KELLY, A.M., M.D., Philadelphia, U.S.A., with the collaboration of Wm. Osler, M.D., Baltimore; John H. Musser, M.D., Philadelphia; James Stewart, M.D., Montreal; J. B. Murphy, M.D., Chicago; A. McPhedran, M.D., Toronto; Thos. M. Rotch, M.D., Boston; John G. Clark, M.D., Philadelphia; James J. Walsh, M.D., New York; J. W. Ballantyne, M.D., Edinburgh; John Harold, M.D., London; Edmund Landolt, M.D., Paris; Richard Kretz, M.D., Vienna. Vols. III and IV, Thirteenth Series, 1903. Philadelphia: J. B. Lippincott Company. Sole Canadian agent: Chas. Roberts, Montreal.

With the appearance of these two volumes, the thirteenth series of this valuable publication is brought to a close, and fifty well-known writers have contributed articles, on a variety of subjects. Amongst the writers are such well-known men as D. W. Finlay, Professor of Medicine in the University of Aberdeen; R. Murray Leslie, of the Royal Hospital for Diseases of the Chest, London; C. G. Stockton, of the University of Buffalo, N.Y.; J. Chalmers DaCosta, of Philadelphia; Sir Dyce Duckworth, of St. Bartholomew's Hospital, London; W. W. Keene, of Philadelphia; A. Pinard, Professor of Obstetrics in Paris Faculty of Medicine; F. J. Poynton, University College Hospital, London; T. E. Satterthwaite, Professor of Medicine, New York Post-Graduate Hospital; Nicholas Senn, University of Chicago; J. Tyson, of Philadelphia; Casey Wood, of Chicago, as well as many other well-known writers.

Volume III opens with six articles on diseases of the gall bladder and gall duct, and the whole subject is pretty well threshed out therein. The first article is one by John H. Musser, President-Elect of the American Medical Association, an able

article that no one who is in any way interested in diseases of the bile-producing and bile-conducting organs can afford to overlook. Dr. Musser goes thoroughly into the subject, both from the standpoint of the physician and the surgeon. The history of his cases is most lucid, and whether treatment has been successful or not, the reader has the opportunity of following its history to the end. The reader is led by these clear writers through the consideration of the question as to when and in what cases operation should be done, and the subject is brought to a close by a paper on the surgical and post-operative treatment of chronic gall-stone disease by Dr. John B. Deaver, Surgeon-in-Chief to the German Hospital at Philadelphia.

Many of the same writers have contributed articles to the fourth volume, all the material of which may be said to be of a very high class. It is almost impossible in a short review of this character to do justice to, or even to consider shortly, the majority of the valuable articles that these volumes contain.

One, however, on the "Treatment of Pneumonia," by D. W. Finlay, Professor of Medicine in the University of Aberdeen, will be of particular interest to most readers at the present time. Pneumonia, in this country at least, has been so prevalent recently that every medical man feels naturally anxious either to find something new on the subject, or, if he has been fortunate enough to have got through with his pneumonia cases, he will be doubly pleased in reading this article for the purpose of comparing what his treatment recently has been with what is suggested by this writer. Dr. Finlay takes up the treatment of pneumonia for the purpose of comparison, and gives a brief summary of the teaching of the most able physicians of the sixth decade of the last century with regard to the elements of treatment. He discusses thoroughly the old treatment of blood-letting and tartar-emetic, and leaves the reader with the impression that there are still cases in which this old treatment may be of value. For the distressing stitch-like pain in the side, he still advises the use of leeches, followed by hot or cold applications. He objects strongly to the use of opium in diseases of the lungs, except in hemoptysis, and declares himself in favor of the hydro-therapeutic method of treatment which gives better promise of success than almost any other. "Theoretically," he says, "the inhalation of oxygen ought to do good. I have, however, never seen any permanent benefit resulting from its use. Possibly, the reason for this may lie in the fact that one only thinks of it in the very worst cases, and as a last resort." Unfortunately, we are not told what the practical effect of the use of oxygen has been in this writer's experience. The chief points in the article may be summarized in the following propositions:

1. No routine drug treatment is of any practical value.
2. All depressants and antipyretic drugs are to be especially avoided, as also all nauseating drugs, and even digitalis, which he looks upon as a depressant.
3. Supporting and stimulating lines of treatment give the best result.
4. Refrigeration of the surface locally or generally is desirable, particularly if delirium be a complication.
5. Alcohol should be used in those cases in which it is clearly required. It should not be given in a routine way.

Although, perhaps, there is nothing very new in this article, it is refreshing to feel that at least we have some treatment which, when carefully carried out, will prove of undoubted value in the majority of cases.

In an article by Thomas J. Mays, A.M., M.D., of Philadelphia, on "Sudden Death due to Respiratory Disorder," the writer draws attention to the fact of the number of cases of sudden death in which certificate of heart failure is given as the cause of death. The article would lead one to think that in the majority of these sudden deaths which are attributed to heart failure, some brain lesion may in reality be the starting point of the difficulty. Of course, there is no doubt that certain pulmonary conditions do occur very constantly as a result of brain injuries. These pulmonary conditions would, and do, account for a certain number of sudden deaths, but with all that, there must be a certain number, as the writer points out, of sudden deaths which are not accounted for satisfactorily, or at least without the possibility of question after the most careful autopsy. The article is one that should be read, as it certainly has a tendency to draw attention to a class of case that, whether through carelessness or want of experience, does not seem to be detected as often as perhaps it ought to be.

The article leaves one with the unpleasant feeling that if we thought as much about this subject as the writer has, there would not be so many certificates bearing on their face that palpable absurdity, "Death from heart failure," which, while it is probably quite true in a certain sense, evidently does not convey always the same meaning.

A. J. J.

The American Year-Book of Medicine and Surgery for 1904. A Yearly Digest of Scientific Progress and Authoritative Opinion in all branches of Medicine and Surgery, drawn from journals, monographs, and text-books of the leading American and foreign authors and investigators. Arranged, with critical editorial comments, by eminent American specialists, under the editorial charge of George M. Gould, A.M., M.D.

In two volumes. Volume I, including General Medicine. Octavo, 673 pages, fully illustrated; Volume II, General Surgery. Octavo, 680 pages, fully illustrated. Per volume: cloth, \$3.00 net; half morocco, \$3.75 net. Philadelphia, New York, London: W. B. Saunders & Company. 1904. Canadian agents: J. A. Carveth & Co., Toronto.

The Saunders' American Year-Book for 1904, is published under the general editorial charge of Dr. Geo. M. Gould. A good deal of the literary work has come from such well-known writers as Drs. S. W. Abbott, Archibald Church, L. A. Duhring, D. L. Edsall, J. C. Gittings, J. P. C. Griffith, Reid Hunt, Walter Jones, A. O. J. Kelly, John Marshall, J. H. W. Rhein, David Riesman, Alfred Stengel, A. A. Stevens, G. N. Stewart, R. W. Wilcox, J. N. Baldy, S. H. Brown, J. Chalmers Da Costa, W. A. N. Dorland, G. Fetterolf, J. H. Gibbon, V. P. Gibney, C. H. Hamann, B. C. Hirst, B. B. Kyle, W. L. Pyle, and J. Hilton Waterman.

The general excellence of Saunders' Year-Book in the past is quite sufficient guarantee of its being fully up to past standards. This year, however, the two volumes are still better, and contain a larger amount of information than before, certain more or less needless material having been discarded.

To attempt to review once a year the progress made in both medicine and surgery is no small task for any body of men to undertake. This year a most valuable change has been made in the character of the book, viz., at the beginning of each chapter will be found a general summary of the advances and discoveries made in that department during the year. By this means, it is possible for one to get at a glance, or at most in a few minutes, a digest of what appears in the section that follows. It seems to us, that this might serve as a hint to other authors; but, in case of incurring the displeasure of the publishers of the Year-Book—*nuf sed*. Dr. Gould and his collaborators have a wonderful faculty of bringing to a focus the almost innumerable advances and improvements made in many branches of medicine, and are to be heartily congratulated in being able to present their readers each year with so excellent a work as the American Year-Book of Medicine and Surgery.

W. A. Y.

The Story of New Zealand. By Prof. FRANK PARSONS. Edited by C. F. Taylor. Illustrated. Equity Series. Philadelphia: 1520 Chestnut Street. 1904.

A handsome volume of 837 pages, containing a vast amount of information on the social and economic questions of New Zealand. The book abounds in phraseology as felicitous as the conditions of life in New Zealand; *e.g.*, "America aims at the

dollar; New Zealand at the man. America has been too busy gathering wealth to give due thought to the social, political and moral effects of the various methods of its production and distribution. New Zealand's attention has been focussed on these effects, and she has tried to arrange her laws and institutions so that the creation, division, possession and expenditure of wealth may proceed on lines that shall make them an unmingled blessing to the community."

Writing of the lawyers, who constitute 60 per cent. of the representatives in the American Congress, the author says: "Most of them who get to Congress are attorneys for giant corporate interests, more or less opposed to the public interest, and about all of them are subject to the psychology of their profession, which means that their advocacy is for sale—that is a lawyer's training and profession to sell his abilities as an advocate."

In the New Zealand House the lawyers form but 12 per cent. of the representatives. Nothing is said in the book of the physicians of New Zealand, so that we may infer that their psychology and training, as in less favored lands, would lead them to advocate what they believe to be right and nothing else. A most entertaining, instructive and well-written book. J. J. C.

The Treatment of Fractures. With Notes upon a Few Common Dislocations. By CHAS. L. SCUDDER, M.D., Surgeon to the Massachusetts General Hospital. Fourth Edition, thoroughly revised, enlarged and reset. Octavo volume of 534 pages, with nearly 700 original illustrations. Philadelphia, New York, London: W. B. Saunders & Company. 1903. Polished buckram, \$5.00 net; sheep or half morocco, \$6.00 net.

This work on fractures, which has now reached its fourth edition, has become widely and favorably known. It embodies good, sound principles for the treatment of this class of injuries. The book, as a whole, commends itself as a thoroughly reliable guide for the practising surgeon, but in some details it proves a little disappointing. Thus the author disposes of the treatment of fracture of the lower jaw by handing his patients over to the dentist for the application of an aluminium or hard rubber splint. We agree that the procedure suggested would be advantageous to the patient in the majority of instances, but surely the surgeon should have some method to fall back upon other than is afforded by a choice between the old "four-tailed bandage" and the splint, which must be manufactured by the dentist. The author quite rightly condemns the four-tailed bandage, except as a mere temporary measure, and thus the choice is in reality restricted to the dental splint. With some experience in these cases, one finds that in many instances the so-called "interdental splint" may be

applied without the aid of a dental expert, and every student should be trained so that he is able to manipulate a piece of wire so as to form, when adjusted to the fractured jaw, a most efficient splint. In justice to the author, however, one must agree that occasionally it is extremely difficult to reduce and hold the fracture in good position, and, in such cases, one gladly resorts to the aid that is afforded by an expert dentist, who can fashion a splint of much more general application than can be provided by the general surgeon.

The author's pronouncement upon the treatment of fractures of the vertebræ is thoroughly in accord with the views of those who have had experience in such cases. We fully endorse the views which he expresses by saying: "In almost all complete lesions, operations are contra-indicated." On page 77, figure 72 is far from being helpful, as it conveys a misleading and erroneous impression. The shading on the figure of a man is purported to indicate the height of anesthesia in a case in which the second lumbar nerve is involved, whilst, as a fact, the shading is carried high enough to involve the eleventh dorsal.

The sections dealing with the fractures of the bones of the extremities are handled in a masterly manner, and many most useful hints are given which should prove of great value to the surgeon who has the advantage of being able to consult this author. The book throughout is illustrated lavishly, X-ray photographs have been utilized in an effective fashion, and excellent diagrams of anatomical relations and apparatus form one of the most valuable parts of this thoroughly up-to-date treatise on fractures.

It is always a treat to find, as one does in this book, good paper, good illustrations and good printing, the publishers having certainly done their work well in this respect. Messrs J. A. Carveth & Co., Limited, 413 Parliament Street, Toronto, are the Canadian agents.

A. P.

The Practical Medicine Series of Year-Books. Comprising ten volumes on the year's progress in medicine and surgery. Issued monthly under the general editorial charge of GUSTAVUS P. HEAD, M.D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Chicago: The Year-Book Publishers, 40 Dearborn Street.

This is the third year for the Practical Medicine Series, and we are glad to report a steady improvement in the work, due, no doubt, to the increased experience of the editors. The volumes are uniform in size and binding with the previous years, but we notice the price is lowered from \$7.50 in advance to \$5.50 for the ten volumes.

Volume I for October, '03, on General Medicine. Edited by Frank Billings, M.S., M.D., Head of Medical Department and Dean of the Faculty of Rush Medical College, Chicago; and J. H. Salisbury, M.D., Professor of Medicine, Chicago Clinical School. This volume deals with the year's work in diseases of the respiratory, circulatory and blood-making organs, general infectious diseases, metabolic diseases, and diseases of the ductless glands and kidneys.

Volume II, November, '03, on General Surgery, is edited by John B. Murphy, M.D., Professor of Surgery, Northwestern University Medical School, Chicago. This volume covers the year's work in surgery. It contains 556 pages and a number of illustrations.

Volume III, December, '03, The Eye, Ear, Throat and Nose. Edited by Cassey A. Wood, C.M., M.D., D.C.L., Albert H. Andrews, M.D., and Gustavus P. Head, M.D. This volume is rather smaller than the surgical number. It has 332 pages and several illustrations. It is up to the standard of the other volumes, and will be found of interest, alike to the general practitioner and the specialist. We are much pleased with these volumes and can freely recommend them to our friends.

W. J. W.

Preventive Medicine. Two Prize Essays—"The General Principles of Preventive Medicine," by W. WAYNE BABCOCK, M.D., and "The Medical Inspection of Schools—a Problem in Preventive Medicine," by LEWIS S. SOMERS, M.D. Published for gratuitous distribution to the medical profession by the Maltine Co., Brooklyn, N.Y.

Apart from the fact that these two essays proceed from the pens of men of the standing in the profession attained to by Drs. W. W. Babcock, Lecturer on Pathology, Medico-Chirurgical College, Philadelphia, and Lewis S. Somers, we consider that it will repay well any member of the profession to send his personal card to the Maltine Co., of Brooklyn, N.Y., or their Canadian representative, Mr. R. L. Gibson, 88 Wellington St. W., Toronto, and receive a copy of the two essays on "Preventive Medicine," for which the company offered and paid over two cash prizes amounting to \$1,500. They are written by gentlemen who are masters of the subject, and it does not take the reader long to realize the true value of their contributions.

Such a course as has, in this instance, been pursued by the Maltine Company cannot but have one effect, namely, to cause a more widespread interest to be taken in the subject of preventive medicine, and when it is borne in mind that the most important condition imposed in connection with the competition was that their preparation, Maltine, or any of its combinations, "must

not be mentioned, or even indirectly alluded to, in the essay," shows that no spirit of commercialism was permitted to be a factor in connection with the work done.

Uterine and Tubal Gestation. A study of the embedding of the human ovum, the early growth of the embryo, and the development of the symphyseum and placental gland. By SAMUEL WYLLIS BANDLER, M.D., Instructor in Gynecology, N. Y. Post-Graduate Medical School. Illustrated by 93 drawings. New York: William Wood & Company.

This very able work represents assiduous study and careful and thoughtful investigation by its gifted author. Full credit is given to Spee, Minot, Wall, and other pioneer workers in the same field, but many original views and observations are graphically brought forward and enunciated in this interesting book. The work is judiciously divided into three parts: I, The Essentials of Uterine Gestation; II, The Essentials of Tubal Gestation; III, Ovarian and Placental Secretion. The book is copiously illustrated, rendering the difficult and intricate subject treated much more clear and understandable than it otherwise would be. Many of the chapters have appeared in the *American Journal of Obstetrics and Gynecology*, under the title, "On the Etiology, Histology, and Usual Course of Ectopic Gestation." The processes antedating and accompanying uterine gestation have been added in this work, making the subject additionally interesting, complete, and up-to-date. All students of medicine will be interested in this somewhat experimental, but purely scientific and thorough, consideration of a practical subject, and it is a work that should be read and studied carefully by every practitioner who is specially devoted to pelvic surgery. G. T. M'K.

The Physiognomy of Mental Diseases and Degeneracy. By JAMES SHAW, M.D., Member of the Medico-Psychological Asylum Workers and British Medical Associations; Author of "Epitome of Mental Diseases," "Golden Rules of Psychiatry," etc.; formerly Medical Superintendent and Co-Licentee, Haydock Lodge Asylum, Lancashire; Assistant Medical Officer, Norfolk County Asylum; Assistant Medical Officer, Grove Hall Asylum, London, etc. Bristol: John Wright & Co. London: Simpkin, Marshall, Hamilton, Kent & Co. 1903.

In this little volume of less than one hundred pages, Dr. Shaw has reproduced thirty-five photographs of former patients, illustrating various types of the leading forms of mental diseases, and accompanying them he has given such brief and lucid descrip-

tions that the student and busy practitioner will find the work both interesting and instructive. He includes in his observations:

" 1st.—Facial color, fine and course facial movements.

" 2nd.—Bodily movements, gestures, gait and attitude.

" 3rd.—Permanent characteristics, such as stature, shape of body, head, face and conformation of features."

To every sympathetic visitor of an asylum the physiognomy of the inmates is a constant reminder of the mental disaster which has overtaken them; and the observation of the lamentable change of facial expression is attended with a regret similar to, but deeper than, that which is experienced in viewing a mutilated painting of great beauty or a broken statue of priceless worth. To anyone interested in the study of the working of those marvellously innervated muscles of the face which, in health, portray the thoughts and emotions, this unpretentious little volume will be especially welcome.

N. H. B.

The Blues (Splachnic Neurasthenia). Causes and Cure. By ALBERT ABRAMS, A.M., M.D. (Heidelberg), F.R.M.S. New York: E. B. Treat & Co.

We are not much impressed from a perusal of this work. The title is not prepossessing from a professional point of view, and had it been entitled "The Dumps" it would possibly have been more typically Western than it is. The author describes Dowieism as suggestion, plus prayer and holy terror. Homeopathy as suggestion plus nothing, allopathy as suggestion plus tubfuls of medicine, which may either kill or cure, while he describes regular or rational medicine (which he presumably practises) as suggestion plus the best common horse-sense available, leaving one to examine the necessary qualifications for such a practice.

We consider it a serious mistake to attempt to discuss scientifically so serious a malady as neurasthenia under so light a title, simply because some of the laity may make use of it.

Subjective Sensations of Sight and Sound, Abiotrophy, and other Lectures. By SIR WILLIAM R. GOWERS, M.D., F.R.C.P., F.R.S., Hon. Fellow Royal College of Physicians, Ireland; Member of the Soc. Medecins Russes of St. Petersburg, and of the Royal Soc. of Science of Upsala, etc. Philadelphia: P. Blakiston's Son & Co., Limited. Canadian agents: Chandler & Massey Limited, Toronto, Montreal and Winnipeg.

In this handsome volume of 250 octavo pages, the author has presented ten of his charming lectures to the profession, and each one is an absorbing study in itself.

The first lecture on "Subjective Visual Sensations" is the Bowman Lecture of 1895, and the second on "Subjective Sensations of Sound" is the Bradshaw Lecture of 1896, and the subject-matter of both is adorned by the author's well-known elegance and lucidity of thought and expression. The chapter on Abiotrophy alone is of sufficient interest to repay one for the acquisition of the volume; the term is employed to denote "a degeneration or decay in consequence of a defect of vital endurance," and when elaborated in its application to the skin, muscles, and nervous system, its examples which come under the daily observation of the physician, acquire a new and engrossing importance. The chapters on saturnine, arsenical and syphilitic poisoning are replete with practical observations, and the last one of the work on the use of drugs displays the philosophic acumen of a mind possessed of the highest technical attainments and enriched with a long and varied experience.

N. H. B.

Introduction à l'Etude de la Médecine. Par G. H. ROGER, Professeur agrégé à la Faculté de Médecine de Paris, Médecin de l'hôpital de la Porte d'Aubervilliers. Deuxième Edition. Revue et considérablement augmentée. Paris: C. Naud, Editeur, 3 rue Racine. 1904.

As the first edition of Dr. Roger's book, which appeared in 1899, was speedily exhausted, a second edition has been placed on the market. Some changes and a considerable number of additions appear in the new volume, which is a bulky octavo of 731 pages. We confess that the portable shape of the volume in the first edition was more to our liking, but in such a matter the publisher is no doubt the better judge. Of the composition of the work, its literary style, and scientific value to the class for whom it is written, one cannot speak too highly.

J. J. C.

Biographic Clinics, Vol. II. By GEO. M. GOULD, M.D., Editor of *American Medicine*. Philadelphia: P. Blakiston's Son & Co. 1904. Canadian agents: Chandler & Massey Limited, Toronto, Montreal and Winnipeg.

In *Biographic Clinics, Vol. II*, Dr. Gould follows up his analysis of the ill-health of De Quincey, Carlyle, Darwin, Huxley and Browning, by a study of excerpts from the biographies, letters and writings of George Eliot, Lewes, Richard Wagner, Parkman, Mrs. Carlyle, Herbert Spencer, Whittier, Ossoli and Nietzsche, demonstrating the origin of their ill-health in eyestrain during the course of their literary work.

With two addresses incorporated in the work, "Eyestrain in the Literary Life," and "Eyestrain and Civilization," the vol-

ume makes a very forcible presentation of the various evils resulting from uncorrected astigmatism, presbyopia, and other faults of vision.

Volume I created much adverse criticism, many reviewers refusing to accept as serious Dr. Gould's conclusions from his studies, but the role of eyestrain in modern life is becoming more recognized, and the present volume cannot help but have its influence in awakening the profession to this much-neglected source of reflex ailments. It is fascinating even to one who doubts the accuracy of his observations and deductions. J. H. E.

Diseases of Metabolism and Nutrition. By Dr. CARL VON NOORDEN, Physician-in-Chief to the City Hospital, Frankford a.M. Translated under direction of Boardman Reed, M.D. New York: E. B. Treat & Company.

This is a most interesting little monograph, and is well worth a careful study.

Physicians who treat chronic disease successfully must keep a close and intelligent watch upon the digestion, excretion and assimilation of their patients, and this work of Von Noorden's will help them to a more complete realization of the numerous forms of self-poisoning, and further, that the acid forms are among the gravest. F. N. G. S.

March Cosmopolitan.—There are several important articles in the *March Cosmopolitan*, which is even more profusely illustrated than usual. The table of contents bears such names as Max Nordau, Edmund Gosse, Cyrus Townsend Brady, H. G. Wells and Clara Morris. In the leading article the editor, Mr. Walker, deals in a striking and prophetic manner with the question of aerial flight, predicting that within a year the airship will be a practical success, and that within a quarter of a century aerial navigation will be the safest means of transportation. The illustrations form a pictorial history of the development of balloons and flying machines. Max Nordau contributes a paper on "Socialism in Europe," and Edmund Gosse a delightful essay on "Immortality and Fame." Gertrude Lynch discusses the "Art of Coquetry," and William R. Stewart contributes an illustrated article on public banquets; Clara Morris gives her reminiscences of the late Justice Lamar. Fiction is contributed by H. G. Wells, Howard Markle Hoke, Clinton Dangerfield and Cosmo Hamilton. The popular "Captains of Industry" series is continued with W. K. Vanderbilt and Peter Cooper Hewitt.

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PUBLIC HEALTH IN ITS ETHICAL RELATIONS.*

BY P. H. BRYCE, M.D.,

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Mr. President, Ladies and Gentlemen,—In complying with the request of your committee to prepare an address which might prove of interest to your Association, I have chosen a subject which ought to call forth a full discussion in a circle of such literary culture as I am aware is especially to be found in this church association.

We of this present age possess, I imagine, as each has that preceded it, a good conceit of ourselves, in supposing that we have evolved a special capacity for looking into the heart of things, and for settling offhand all sorts of questions in a manner which those going before us never possessed. Certain it is, however, that the remarkable developments of science during the past century have given us advantages in arriving at just conclusions on many subjects, such as were never afforded to previous generations. But we have only to turn to the works of philosophers of the nations of antiquity to realize that many problems of life were studied with an enthusiasm and clearness of vision which in some respects distances the attainments of the greatest philosophers of modern times; whether such ancient sages were of Babylonia, Egypt, China, Palestine or Greece. Amongst all, the thoughts of their teachers dwelt upon the mystery of being, while all in vain sought out the "Unknowable." In a very

* Read before the Unitarian Club, Toronto, February 20th, 1904.

recent book on "The Ideals of the East," the Japanese scholar, Kakasni Okahura, has in a most interesting way indicated "that two mighty chains of forces enthrall the Japanese mind." One is the Asiatic ideal, "replete with grand visions of the universal, sweeping through the concrete and particular, and the other, European science with her organized culture, armed in all its array of differentiated knowledge and keen with the edge of competitive energy." "On the other hand, it has been the outgrowth of the renaissance in Japan, wherein there has been a revival of Shintoism, or a pure form of ancestral worship, older than Buddhism, wherein patriotism has revived through the national religion centring in the emperor, as the descendant of the Godhead;" "and on the other, of that modern eclecticism of Eastern culture, through which Japan possesses that maturity of judgment which makes her select from various sciences those elements of European civilization which she required."

These somewhat academic remarks have been made in order that we may properly discuss the ethical relations of public health, since, as in recent years, we have begun to see that the problem of the preservation of the life of the individual has an interest not alone for himself, but for the family and the State; and that, as it is taking its place amongst the exact sciences, it has become one of the functions of government, whether provincial or national. Placed alongside education, governments, by statutory enactments, are providing that the physical life of the people shall receive its attention equally with the mental; while many of us are prepared, further, to say that education should be but a general term used to indicate the healthy development of the whole man, since no real distinction exists, in fact, between the mental and the physical.

Clearly, then, there is no phase of public health, be it personal hygiene, municipal by-laws or legislative enactments, which has not in its very essence ethical qualities. What do we mean by ethical? Essentially, it means those qualities which distinguish man as a moral being and which relate to his habits and modes of thought and action, as distinguishing him from the lower animals. Not but that they, too, may have codes of ethics; but, nevertheless, they are not ours.

If, then, our definition is correct, we may illustrate by examples the comprehensive character of our subject. The status of a nation is essentially measured by the ethical plane upon which the great majority of its people are to be found. That of Japan to-day is appealing to the admiration of the world; and its basis is to be found in the words of the philosopher already quoted. That of Canadians will be measured by the quality of our acts, personal, social and political, which gives character to

our people as a whole. Where, then, regarding such shall we begin? With the individual, or the nation? Surely with the individual, for society is but a microcosm, made up of its units, combined into a living whole. Shall we start with the child at birth? Surely even prior to this, for in the child is found the germ of all the qualities, physical and mental, of its parents! Clearly, then, the qualities of the parents and the sanitary environment, in its broadest sense, of the mother are of inestimable value and importance to the sanitary future of the child and of the nation. Everyone nowadays is familiar with the fact of living organisms, whether plants or animals, being built up from the individual cell, and of how this divides and multiplies infinitely, each cell being nourished or impeded in its development by its environment, according as this is favorable or the opposite. Evidently, then, as the plant or animal, as we know it, is constantly influenced by air, sunlight and food, so must the tissue-cells, whether pre-natal or post-natal, be daily, even hourly, influenced by their surrounding fluids.

Surely, then, to those who would worthily bear the name of good citizens, who are to be the fathers or mothers of the race, the hygiene of the person, of the home, of the community, is a matter of supreme importance. Time will not permit us to greatly enter upon details as to all that this implies; but it is important to remember that every aberration from the normal in our actions, whether voluntary or otherwise, produces its definite effect, quite measurable if our instruments of experiment be sufficiently delicate. Everyone, for instance, is aware of the dominating influence of mental conditions, not only upon our happiness from day to day, but he further has the personal experience of how the joy of being depends upon a healthy mind in a sound body. Let anyone recall the effect of a worrying day of business, of household cares, or of mental shock from sorrow upon, for instance, digestion and nutrition; of how, on the other hand, a holiday with mental relaxation, change of air and of scene, brushes away the cobwebs from the brain, gives a sense of well-being, causing the blood to course freely through the veins, making him eat, sleep, and take delight in the nature and life around him, and in the very sense of existence, and he will realize that environment is not only an external, but an internal affair, affecting the nutrition of every nerve-cell and every muscular fibre. Can anything, then, be of more importance than that the mother of the life that is to be shall have every influence surrounding her, physical, mental and moral, of the highest, purest and most wholesome character, in order that such may be transmitted as a gift to her offspring? Are these, then, not the most potent reasons why the mothers of our people, in this artificial age, should fully realize that the duties of motherhood

become, in a peculiar sense, those of patriotism, in the sense of the term understood by the Spartan mother who, when asked how it was that the women of Lacedaemon rule the men, replied, "Because we grow men." Is there not, further, an ethical reason why the daughters of our country, instead of thinking, as it is feared too commonly to-day, of only what can afford them evanescent enjoyment and æsthetic pleasure, should rather, both by example and precept, be worthy of their glorious ancestry as the nation-builders of the future? Would that our young people could be raised to a full realization of our national responsibilities, by some patriot poet like Körner, who gave to Germany "The Fatherland's Call to Arms in the Struggle of Liberation," and whose last poem was written as he lay wounded on the battlefield of Kitzen. Heroism, perhaps more difficult, because more prosaic, may still be exercised by us in our everyday duties, and have as high a value to our country as ever were Körner's wild war-songs to his beloved country.

May we now refer to the mother, whose infant, the joy of her life and the blessing of her home, is nestling to her breast, placed in her holy keeping. Here again the same ethical qualities are demanded of her, supported equally in such by the father of the home. Speaking generally, our women, the mothers of our children, are worthy of their ancestry; but it cannot be overlooked that the stress of modern life calls for the exercise of a personal self-denial on the part of many mothers, to which they find it difficult to submit. We have read in recent, and especially in American, magazine literature discussions upon the question of: How many Children ought a Modern Family to include? and we have known female authors, with a mental attitude subversive of all womanly delicacy of sentiment, ignoring all moral responsibility, patriotic duty or religious conviction, boasting of an emancipated womanhood, whose first and last demand is a right to enjoy life, and to eliminate all those home duties and ties, which may in any way inconvenience her in her struggle for the so-called rights of woman, while totally oblivious of those higher rights and holier joys, which have, since the world began, placed motherhood supreme on the throne of honor, and as the shrine of holiest worship.

In such a mental confusion, surely all must agree that we see an exhibition of ethical unsoundness, such as, in its essential nature, indicates a mental and moral degeneracy, which means, if generally accepted, ruin to society, and such a danger to the public well being as only requires to be realized in order to arouse us to protest against a subversion of the very principles upon which the foundations of any State can permanently be built up. In its essence wholly selfish, it cynically and with vulgar brazenness ignores the dignity and beauty of that altruism which society,

patriotism and the moral status of the people all alike demand, and which is typified in that holiest manhood and highest philosophy, illustrated in the life of the Christ.

This is no mere temporary or passing danger, since, if it should increase, it will emasculate and sap the very essence of those Anglo-Saxon virtues which have caused the race to dominate and rule the world, and which will as surely mark the decadence of the race, as did the crimes, physical, moral and social which rang out the death-knell of Roman greatness, and marked the rise of the Teutonic power. These races, emerging from the German forests, great in their physical strength, with mental powers requiring only Latin culture as a stimulus to their development, transformed the face of Europe, and made its future history, not by superior intellect, but solely from its family virtues, which made society wholesome, and in which the purity and divinity of womanhood were the crown and supreme beauty.

Perhaps, Mr. Chairman, I have referred at undue length to the ethics of public health as involved in the bearing and rearing of the children of our country; but my excuse must be that my training as a physician, my experience as a public health officer, and my work as a student of vital statistics, all, I trust, entitle me to speak on a branch of our subject, which it had been more pleasant not to have discussed.

We now turn naturally to the consideration of the ethics of public health involved in the education of the child as it enters upon its school life. It is of much interest to note that it is at this stage that the State actually assumes a responsibility in the building up of the character of its citizens. Most, indeed all, I think, will agree with me that whatever may be said regarding the inculcation of the tenets of religion in the schools of other countries, in ours at least the education of our children by a school system such as we possess, not only comports with the growth of a spirit of friendliness amongst persons of different creeds, but further furnishes ample opportunities for the education of our children in those ethical ideas which are common to that literature which is the glory of Anglo-Saxon and Teutonic civilization. Speaking especially of those branches of this education which deal with the public health, although in the broader meaning we have given the term there can really be no separation between the physical and mental in true education, we may observe that, until within very recent years, our methods have been those of that older scholasticism which viewed education solely from the mental standpoint and ignored physical considerations. In no direction, probably, has the teaching of public health principles received less practical application than in our public schools during the past twenty years. The tissues of the child, sensitive in the highest degree to good or bad influences,

have been but lightly thought of. Rooms overcrowded, and almost wholly dependent on accidental ventilation, have been the homes for thousands of children for six hours daily, for months and years. The child has, on the one hand, been deprived of the pure air of an outer atmosphere, while subjected at the same time to the debilitating effects of foul air and the infection often borne upon the breath from children suffering from disease. Our death statistics bear ample testimony to the excessive prevalence of contagious diseases in children of school age, as compared with those of younger years. Much, very much, has been done to lessen these dangers by removing the infected when discovered; while but little has been attempted by ventilation to prevent their dissemination through foul air. Similarly, the absence in winter of adequate moisture, through furnace systems of heating, has made the throats of the children to be peculiarly liable to inoculation with disease germs wherever present. Again, the size and location of rooms have caused most serious evils to the eyesight, owing to defective lighting, making a large percentage of children to develop myopia and other forms of defective eyesight. The effects of eyestrain, not only in preventing full advantage to be taken of blackboard work, but also through inducing defective nutrition, are too well known to every physician who has given the matter serious attention. Add to this the overwork demanded by home studies, and it will readily be understood how serious are the effects, both physical and mental, induced by such unscientific procedures. It hence becomes plain that all these conditions have their ethical bearing upon the question of whether or not we are building up a virile race, equipped physically and mentally to take their part in the later battle of life. Were our people, our teachers and our legislators fully sensible of the prime importance of these matters, can there be any question but that more generous expenditures and more scientific methods in the education of our children would prevail? The remedies for these conditions are plain; but it is equally evident that radical changes in some directions are demanded. It has been proved beyond doubt that the child up to ten or twelve years of age cannot have its attention tasked by continuous mental work, beyond two or three hours daily, to advantage; and that a half day in school with the balance spent in play, drill or manual training, is productive of far better results mentally, while that physical insufficiency, which is present or induced in so many children, can thus easily be remedied or prevented.

The value of these hygienic means of education cannot be overestimated. The resistance to disease and to mental and moral defects, which the strong, normally constituted boy or girl possesses, is readily comprehended. The will-power is normal, and under proper direction such a child will delight in whole-

some outdoor exercises and sports, which are the surest defences against unwholesome introspection, deficient sleep, and the development of the several neuropathies incident to youth, and which are the bane of the artificial life of to-day. To be a good animal is true scientific philosophy and good religion; and any system of religion which claims that man's physical nature should be looked upon as of less importance than his mental, that a normal desire for pleasure and the joys of existence are of the devil, and that his body should be scourged and mortified by penances, as those of the eremites of the desert were, is not only an offence against reason, but, moreover, an unholy blasphemy against a Creator who has created man, His crowning work and the glory of the world.

But with our youth grown to manhood and womanhood, as we find them, what have we to say with regard to them? It will be evident that the plane upon which we find them will be the measure of their desire and ability to make and obey public health laws, whether affecting the individual or community at large. We very properly measure our civilization by the extent to which we have made the powers of nature minister to our comfort and happiness. The Indian of the sub-arctic forests, so long as his life is simple and in harmony with his nomadic habits, lives happily and healthfully, and it is only when he settles on a reserve, dwells in a small house on the same location continuously, without a knowledge of the effects of foul air, ignorant of the dangers incident to organic waste and of the diseases which spread from civilized communities, that he does seriously suffer. He has not yet learned the defences which civilized man sets up against these incidents of his environment. We see in this, in broad outline, an illustration of the fact that natural laws violated bring their inevitable punishment; while, on the other hand, the fact that the cultivated intelligence of man has in so many ways found means of defence, is of the highest importance in teaching us that the uplifting of man, physically, intellectually and morally, is only by experience, endeavor, suffering; that the *iter ad astra* is a veritable *via crucis*—the pathway to the stars, a veritable Gethsemane!

I trust I have made my meaning plain. The troglodyte, primitive man, living naturally according to his instincts through experience, avoided, as do the beasts, the dangers of his environment. They preyed upon others, and were in turn preyed upon—a true survival of the fittest. Man advancing developed new faculties, and overcame yet more those dangers which beset him; and thus, by so much, through at times the absence of necessity, neglected the maintenance of those defences to be demanded in some hour of sudden need. Such was the history of the older civilizations of Babylon, of Egypt, of Greece, and of

Rome. Through crimes, first physical and moral, and then political, these nations crumbled to the dust; virility, force, rude virtue ever triumphing over them. Resurrection, renaissance, if they ever came, or ever could come, could only be by the pathway already indicated, by the return to a physical, intellectual and moral norm. The same has been the history of the pathway which public health has followed. Some 15,000,000 persons died of the plague in the fourteenth century. Crowded Europe met a foe she was powerless against through lack of knowledge. Nature's laws, unalterable, worked their fatal cure, and the disease exhausted itself because victims were lacking, or some counter law worked for their salvation. Similarly, the plague which scourged London in 1666 was stayed by the fire, which, in its devouring flames, yet showed a beneficent mercy. Smallpox was, through century after century, the permanent scourge of the world, until the scientific observation and exact experiments of Edward Jenner taught mankind that if "Nature was 'red in tooth and claw,' she yet was kind to those who loved her and discovered her secrets. Half a century later, when man's intellect had been aroused to yet more serious endeavor; after Davy had invented his safety lamp and taught men how to save thousands of lives; after Watt had harnessed the wheels of factories to his steam-engine, and Fulton and Stephenson had learned how to transport their products to all the shores which engirdle the world, a man almost divine in intellect, purpose and goodness, the immortal Pasteur, sought out in his chemical laboratory in Paris, the secrets of life, and in a series of experiments, perfect in their exactness, and conceived by an imagination superhuman in its intensity and clearness of vision, wrested the secret of that multitudinous life of the infinitely small, which has made the last thirty years an epoch in the triumph of man over the forces of disease antagonistic to life, greater than all the centuries and millennia which preceded it. Nature is, indeed, not evil, but benevolent; but Nature must work out her own problems. So must man be true to his mission. Endued with powers which make him a part of Nature, yet made by its Creator to be the head and crown of things; placed on this earth to work out the purposes of Him who has caused man to evolve, through the functions of brain tissue, peculiar to man, those high and yet higher principles of life which operate through the same essential materials as those of the simplest living being, since the complexity of organization and structure in man is but the multiplied functioning of cells, as simple as the lowest protozoan animalcule, we behold in this whole mystery of Nature man given the exalted and single opportunity of overcoming seeming evil by the exercise of his god-like powers, through the purified and developed intellect in all its attributes.

Such are the ethics of public health! Enlarge its popular signification, and it means the study of man in his relations to Nature: enquire into its objects, and we find them comprehending the emancipation of man from the traditions of a crude and uncomprehending past, as regards matters physical, and from a belief in the existence of a pitiless demonism, punishing mankind because they knew not themselves; anticipate its ultimate triumphs, and we behold, with perfect confidence, the time when that which has been called evil shall be as the world, whose Creator, in the morning of time, pronounced it to be good! This shall be when the created, in all his being, physical, intellectual and moral, has become a part of the divine harmony, and when nothing shall be called common or unclean. Then shall be fulfilled the dream of the holy sage of Patmos, who saw a new heaven and a new earth, wherein the Creator beheld himself revealed in the glory of His own creation!

Our hopes, our destiny, our strivings, seem to me very admirably summed up by Browning in his "Paracelsus." Answering Festus, Paracelsus says:

"Be sure that God
Ne'er dooms to waste the strength he deigns impart!
Ask the geier-eagle why she stoops at once
Into the vast and unexplored abyss,
What full-grown power informs her from the first,
Why she not marvels, strenuously beating
The silent, boundless regions of the sky!
Be sure they sleep not whom God needs! Nor fear
Their holding light his charge, when every hour
That finds that charge delayed, is a new death.
This for the faith in which I trust; and hence
I can abjure so well the idle arts
These pedants strive to teach and learn; Black Arts,
Great Works, the Secret and Sublime, forsooth—
Let others prize; too intimate a tie
Connects me with our God! A sullen fiend
To do my bidding, fallen and hateful sprites
To help me—what are these, at best, beside
God helping, God directing everywhere,
So that the earth shall yield her secrets up
And every object then be charged to strike,
Teach, gratify her master God appoints?
And I am young, my Festus, happy and free!
I can devote myself; I have a life
To give; I, singled out for this, the One!
Think, think! The wide East, where all wisdom sprung;
The bright South, where she dwelt: the hopeful North,
All are passed o'er—it lights on me! 'Tis time
New hopes should animate the world, new light
Should dawn from new revealings to a race
Weighed down so long, forgotten so long; thus shall
The heaven reserved for us at last receive
Creatures whom no unwonted splendors blind,
But ardent to confront the unclouded blaze,
Whose beams not seldom blessed their pilgrimage,
Not seldom glorified their life below."

THE GENERAL COURSE OF THE URETER.

BY BYRON ROBINSON, B.S., M.D., CHICAGO.

A.—INTERNAL COURSE.

FOR convenience of description and practical application in diagnosis or surgical intervention, I shall divide the course of the ureter into general and special. A knowledge of the course of the ureter implies an exact view of its topography, or relations to adjacent structures, for frequently it is purely mechanical accidents or relations of topography which are the cause of the pathologic conditions. This is particularly the case in reference to the ureteral pelvis and the proximal and distal ureteral isthmuses. The chief ureteral therapy is applied to its proximal and distal ends; hence exact knowledge of its anatomical course is a first essential for diagnosis and surgical intervention. The ureter lies in various planes in its general course. We will assume a frontal or transverse plane, and a dorso-ventral or sagittal plane to locate the curves or flexures of the ureter in its course. It describes in its general transverse frontal plane two flexures, viz.: (a) a renal flexure or *flexura renalis ureteris*, which is produced by the medianward projection of the distal renal pole; (b) a pelvic ureteral flexure or *flexura pelvina ureteris*, which is produced by the distalward movements of the viscera, due to erect attitude and the curves of the bony pelvis. The course of the whole ureter's cast on the planum transversum would resemble an italic letter *f*. It describes in its dorso-ventral plane curves resembling those of the vertebral column. The course of the whole ureter's cast on the dorso-ventral plane would resemble the letter *S*. The following table shows the general ureteral course in its transverse and dorso-ventral planes:

General course of the ureter.	1. Planum Transversalis or Frontalis.	(a) <i>Flexura renalis ureteris</i> .
		(b) <i>Flexura pelvina ureteris</i> .
		(c) The cast of the ureter on this plane resembles the italic letter <i>f</i> .
	2. Planum dorso- ventralis or sagittal plane.	(a) <i>Flexura iliaca ureteris</i> .
		(b) <i>Flexura pelvina ureteris</i> .
		(c) The cast of the ureter on this plane resembles the letter <i>S</i> or the curves of the vertebral column.

The ureter can be deviated from its general course in certain segments for six inches without loss of integrity. I found in measuring one hundred and fifty ureters that the average length was eleven and one half inches. The left ureter was about one-

half inch longer than the right. The general ureter describes in its course three important curves or flexures, which lie in different planes, viz.:

(a) *Flexura renalis*, or the bending of the proximal end of the ureter over the distal kidney pole. The concavity of this ureteral curve is practically laterally external. This is one of the most important ureteral curves or flexures, as it involves two practical matters; it is near the narrow proximal ureteral isthmus or neck, the flexion or torsion of which obstructs the urinal flow (hydro-ureter), and also ureteral calculi are apt to become obstructed by the narrow ureteral neck.

(b) The second curve or flexure I shall designate as the *flexura iliaca*, produced by the projection against the ureter of the vasa iliaca in the erect attitude. This is an important curve or flexure, on account of its proximity to the ventral abdominal wall, and the possibility of detecting it by palpation.

(c) The third ureteral curve or flexure is the *curvatura pelvina*, the ureteral elbow, formed by following the lateral pelvic wall and bending toward the bladder, due to erect attitude. The pelvic curve of the ureter, *curvatura pelvina ureteris*, depends to a large degree on the contracted or distended condition of the bladder. By maximum distention of the bladder the pelvic ureteral flexure becomes almost a right angle. In short, the ureters converge in their course from the kidney to a point immediately proximal to crossing of the vasa iliaca of the proximal arterio-ureteral crossing. They then rapidly diverge to the spina ischiadica, the ureteral elbow, after which they again converge to the bladder. At the level of the os uteri externum the ureters are separated about two and a half inches. The ureter, as it courses by the os uteri externum, is about one inch from the bladder wall. In fetuses and infants several curves may be noted in the lumbar ureter, and some in the iliac and pelvic portions. About half the course of the ureter lies in the abdomen and half in the pelvis. The course of the ureter is the tract or bed it occupies in passing from the kidney to the bladder. Their course, unlike that of a railway track, is not parallel to each other. The ureters in their course twice converge and twice diverge from each other. The ureters course through regions occupied by many and varied organs. The ureter begins at the calyces on a level with the first lumbar vertebra. It passes medianward obliquely over the surface of the psoas muscle, where on a level (left) with the fourth lumbar vertebra it crosses dorsal to the vasa ovarica (the proximal arterio-ureteral crossing), forming an acute angle with these vessels. From the apex of the uretero-venous triangle it passes with a slight median curve over the ventral face of the psoas to the iliac vessel. The major lumbar

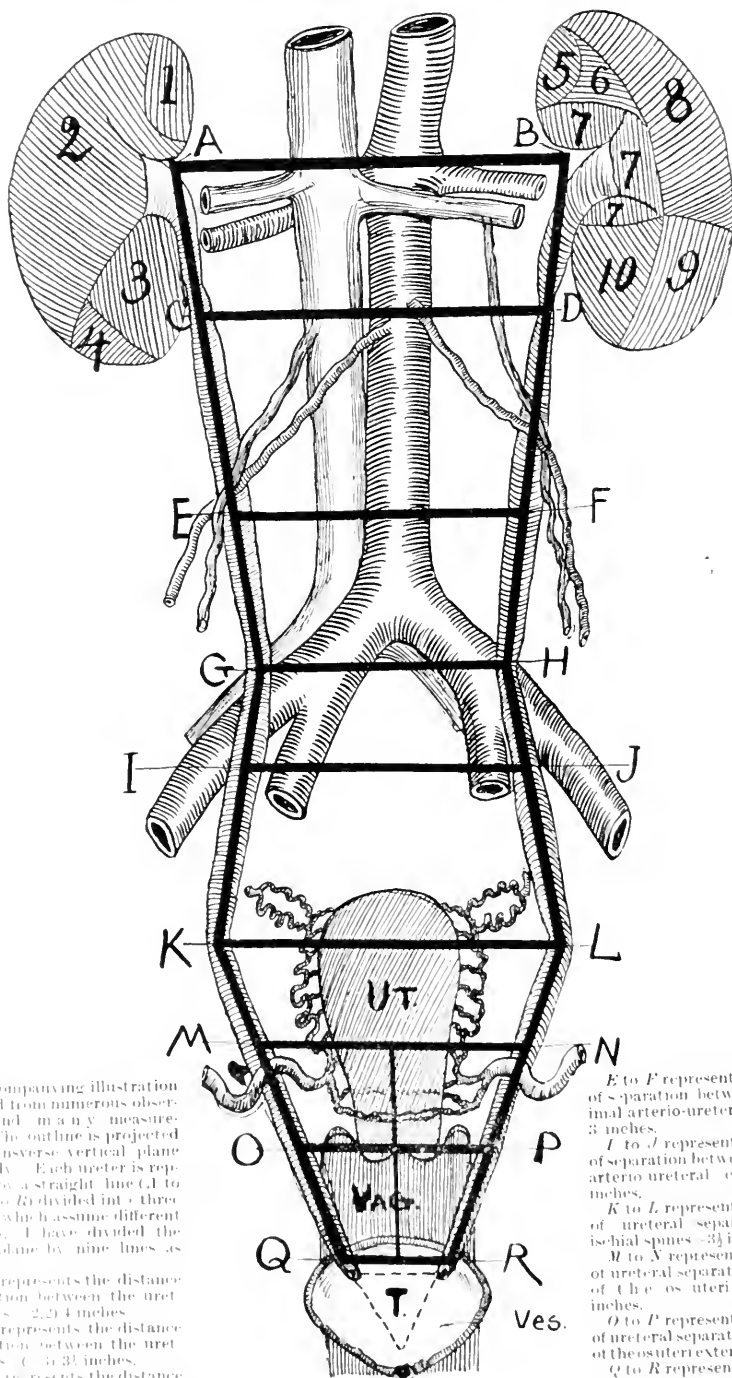


FIG. 1.

The accompanying illustration is sketched from numerous observations and many measurements. The outline is projected on the transverse vertical plane of the body. Each ureter is represented by a straight line (I to Q and R to S) divided into three segments which assume different directions. I have divided the ureteral plane by nine lines as follows:

A to B represents the distance of separation between the ureteral pelvises—22½ inches.

C to D represents the distance of separation between the ureteral necks—16½ inches.

E to F represents the distance of separation between the closest approach of lumbar ureters—2½ inches.

G to H represents the distance of separation between the proximal arterio-ureteral crossings—3 inches.

I to J represents the distance of separation between the middle arterio-ureteral crossings—3 inches.

K to L represents the distance of ureteral separation at the ischial spines—3½ inches.

M to N represents the distance of ureteral separation at the level of the os uteri internum—2½ inches.

O to P represents the distance of ureteral separation at the level of the os uteri externum—2 inches.

Q to R represents the distance of ureteral separation between the distal and vesical orifices—1 inch.

spindle of the ureter lies on the psoas muscle. The ureter in the majority of subjects lies in the groove (left), between the external and internal iliac vessels. This is the important topographical point in the course where the ureter passes from the abdominal segment into the pelvic segment. I shall designate it as the *flexura iliaca ureteris*. The course of the ureter now lies in the pelvis, along the lateral pelvic wall to or near the region of the ischial spine, whence it bends, becoming the ureteral elbow. It then enters the ligamentum latum and crosses dorsal to the uterine artery (*the distal arterio-ureteral crossing*), which occurs on a level with the os internum, whence it bends medianward and ventralward, passing about one-half inch from the cervix. The ureter is separated from the cervix by the parametrium, containing the uterine artery and plexus utero-vaginalis and plexus vesico-vaginalis venosus. Both venous plexuses are united and imbed the ureter in their network or organs. It is important to know the relation and course of the ureter to the uterus, vagina and rectum. The ureter passes one-half inch from the cervix and in contact with the lateral and anterior vaginal fornix. In vaginal hysterectomy the ureter may be wounded or severed. I know of quite a number of cases where the ureter was injured in both abdominal and vaginal hysterectomy. I witnessed one abdominal hysterectomy where the operator actually severed both ureters. In this case the ureter was distorted in its course by ovarian tumor. Also tumors intra- or extra-rectal will disturb the relation of the ureter to the rectum. The importance of the course of the ureter to the bladder is evident, especially in hysterectomy. Since the ureter, a flat, sinuous, membranous cylinder, is longer than the distance between its renal pyramids and the vesicle trigone, it must assume a winding course. One can draw the ureter through an abdominal incision without destroying its integrity. Its course is in a vast mobile connective tissue bed. In fetal and childhood life I have observed the ureter in a sinuous course similar to that found in the oviduct. The ureter assumes a course medianward, obliquely proximally, and obliquely distally. The two ureters in general converge from the origin, at the renal pyramids to the termination at the external angle of the vesicle trigone. The course of the ureter is never extended or straight. The ureters converge toward each other twice, once in the lumbar region and once in the pelvic, and diverge from each other twice, once in the lumbar region and once in the pelvic. The convergence of the ureters is, no doubt, due to growth, distalward movements of viscera and the erect attitude. The ureter in its entire course lies in a universally loose bed of subperitoneal areolar tissue. The ureteral course is not fixed

at any point, however; it is more mobile at some points than others. It shows in the wide range of motion of the segments of the tractus urinarius and genitalis. The mid point of the course of the ureter may be mapped on the abdominal surface by

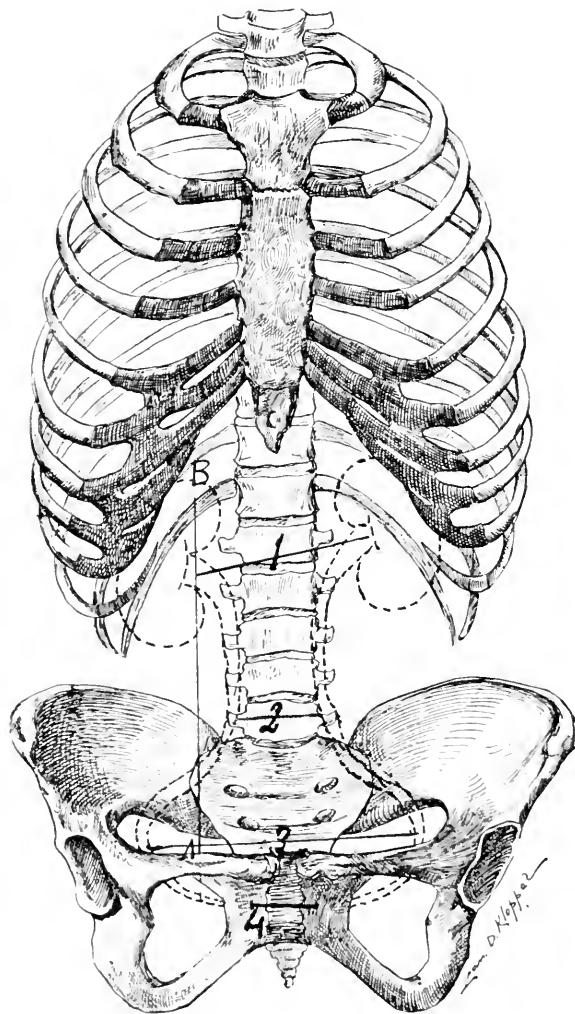


FIG. 2.

Represents the skeletal course of the ureter. (1) Distance between ureteral pelves, 4 inches; (2) Line between ureters at 5th lumbar vertebra, 2½ inches; (3) Line noting widest separation of pelvic ureters, 3 inches; (4) Line between distal ureteral orifices. A and B represents line of ureter.

making a point midway between the xiphoid appendix and symphysis pubis, and passing to the right or left one and a half inches. The general body surface course of the ureter may be observed by placing a perpendicular plane at the junction of the internal

and middle thirds of the ligamentum inguinale (Poupart's ligament). This plane will correspond almost exactly with the general course of the ureter. Practically the ureter courses along the external ends of the transverse process of the third, fourth and fifth lumbar vertebræ. The ureter in its entire course is extra-peritoneal, and is located between peritoneum and abdominal wall. The left ureter lies nearer the vertebral column than the right. A reliable bony outline for the course of the ureter is the twelfth rib, two inches from the vertebral spine; the external ends of the third, fourth and fifth transverse processes, the sacro-iliac joint and the ischial spine.

B. EXTERNAL COURSE.

(a) *Ventral Abdominal Wall*.—This is the course of the ureter corresponding to the external surface of the body. Since the valuable introduction of the X-ray in the diagnosis of ureteral calculi the course of the ureter has assumed general interest. The course of the ureter as projected on the external body surface is becoming of value in diagnosis and surgical intervention. One can mark approximately for practical purposes the outline of the course of the ureter on the surface of the abdominal wall. It cannot be marked mathematically exact, as there always arises the individual anatomic variation, the personal equation. The ventral abdominal wall is very variable in its condition. In the course of the ureter it is important to know the location of three points, viz., the proximal, middle, and distal isthmuses, as calculi are liable to lodge at the three named points, besides the middle and distal isthmuses are palpable. To determine the course of the ureter on the abdominal surface draw a line (AB) parallel to the trunk axis from the junction of the inner and middle third of Poupart's ligament to the twelfth rib. This line marks practically the external course of the renal, lumbar and iliac segments of the ureter, in short it practically marks the course of the abdominal segment of the ureter. Most of the pelvic segment of the ureter (all of the lateral pelvic and part of the pelvic floor segment) will be external to the vertical line (AB).

To mark on the abdominal surface the corresponding location of the proximal ureteral isthmus or neck, the point of the most frequent obstruction to calculi, draw a line (CD) at the level of the twelfth rib, and perpendicular to the first line (AB). The point of meeting (X) of the two lines (AB and CD) will be about two inches proximal to the proximal ureteral isthmus.

To mark the course of the pelvic ureter on the abdomen, one practically follows the outline of the proximal brim of the lesser pelvis, which is easily palpated.

To mark the middle point of the abdominal segment of the

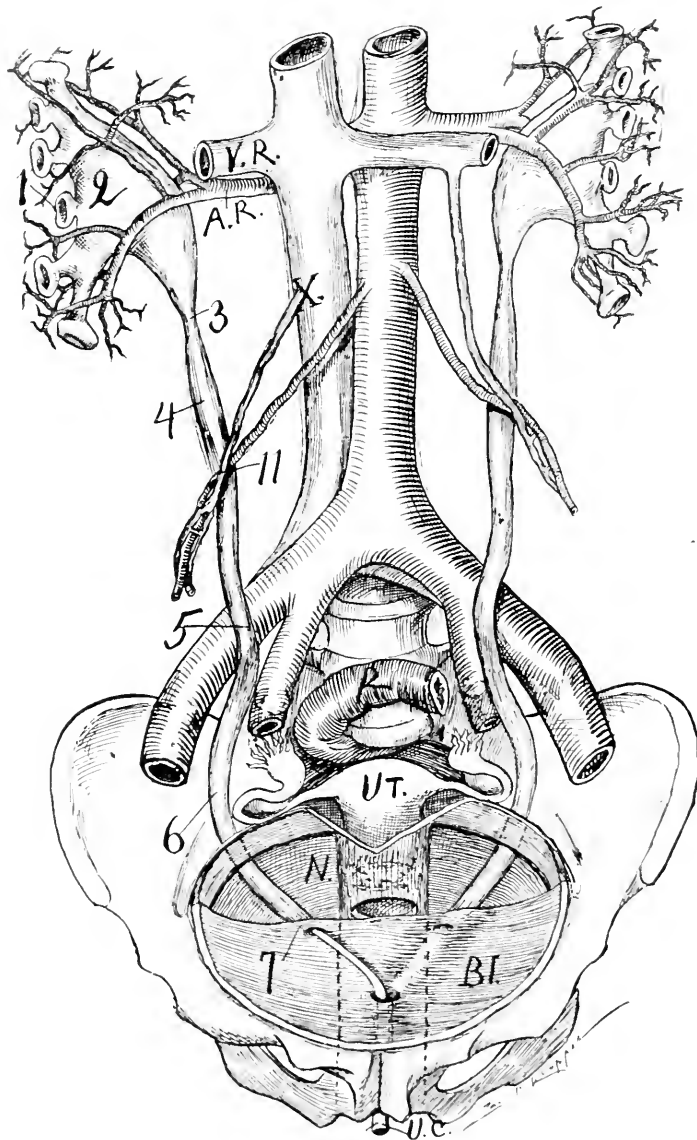


FIG. 3.

Represents the ureter in its general course; also it shows relation with peritoneum.

ureter, *i.e.*, the ureteral segment lying between the calyces and the entrance of the ureter into the lesser pelvis, draw a horizontal line (EF) midway between the distal end of the xiphoid process and the proximal border of the symphysis pubis. The middle point of the abdominal ureter will lie approximately at E

and F, according to the size of the subject, one to one and a half inches lateral to the median trunk line.

The most important point of ureteral location as regards the external surface is the point of entrance of the ureter into the lesser pelvis; in other words, the iliac segment of the ureter. At this point the ureter lies practically on a bony bed, which is projected closely adjacent to the ventral abdominal wall by the vasa iliaca and hence may be palpated. The pulsation of the vasa iliaca aids in determining this point. To establish the course of the iliac segment of the ureter on the abdominal wall draw a line (GH) from one anterior superior iliac spine to the other, and divide it into three parts; the points (I, J) of intersection will represent the curve of the iliac segment of the ureter on the abdomen. The distance of separation of the ureters at this point (segments two and one-half inches) is the same as the distance of separation of the anterior superior iliac spine (G and F), from the intersecting lines (I and J, two and one-half inches). Hence the course of the ureter, as marked on the abdomen, is two and one-half inches internal to the anterior superior iliac spine.

In palpating for the iliac segment of the ureter one palpates more proximalward than this point (Y), as the abdominal wall yields easier and with wider range toward the middle of its length.

Another method to locate the iliac segment on the abdominal surface is to draw a line (GT) from one anterior spine to the other, after which draw a second perpendicular line (KL) to the first (GF). The junction points of these two lines (GF and KL) will lie about one inch internal to the iliac segment of the ureter, as marked on the abdomen.

(b) *Dorsal Abdominal Wall*.—The course of the ureter as projected on the external surface of the dorsal wall is comparatively of less value in diagnosis or surgical intervention, as it is deeply seated with bony protection and not accessible to palpation. However, it is of value in determining the location of a calculus in X-ray shadows. The separation of the course of the ureters is the same ventrally and dorsally at the important point, viz.: Proximal ureteral isthmuses (four inches), middle isthmuses (two and one-half inches), and distal isthmuses (one inch). If one draws a vertical line on the skin one and one-half inches lateral to the lumbar spinous process—in other words, a line drawn on the skin one and one-half inches laterally parallel to the lumbar spines—it will practically cover the abdominal (renal and lumbar) and iliac segments of the ureter. The ureter should be sought at the external end of the transverse process of the second, third, fourth and fifth lumbar vertebræ. Also, a line on

the skin from the sacro-iliac joint to the tip of the ischial spine represents the major course of the lateral pelvic ureter.

(c) *Lateral Abdominal Wall*.—The projections of the ureters on the lateral trunk wall practically correspond with the lateral lumbar column or approximately the axillary line.

THE ROUTE OF ACCESS TO THE URETER.

There are three routes to the course of the ureter for inspection, diagnosis or surgical intervention, viz., two extra-peritoneal:

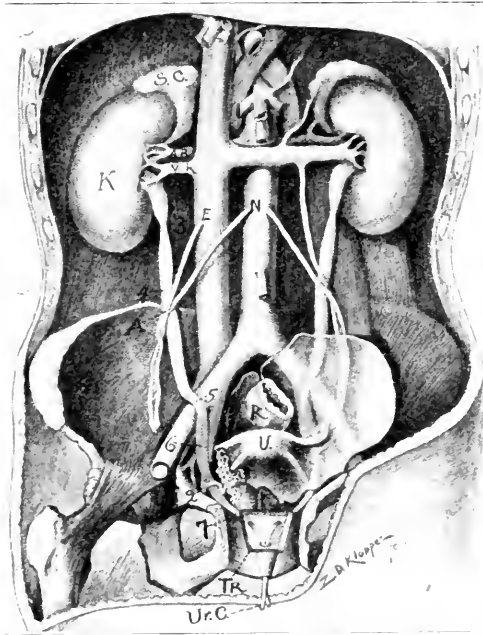


FIG. 4.

Ureter in its general course. Proximal ends of ureter from my corrosive specimens. Ventral view showing vascular relations of ureteral pelvis (P) and calices (C). Note how vascular is the ventral surface of the ureteral pelvis. Observe the proximal ward bifurcation of the iliac communis. U.C. shows a catheter in the ureter.

(a) the lumbar (iliac and supra pubic), and (b) the vaginal; and one intra-peritoneal.

(a) *By lumbar, iliac and supra pubic*, extra-peritoneal incision, one can inspect, and palpate the ureter from the ureteral pelvis to the urinary vesicle wall. The ureter with the peritoneum must be forced medialward. In operations, accompanied by extreme peritoneal adhesions, I have isolated the ureter free from adjacent viscera and peritoneum for six inches (from proximal arterio-ureteral crossing to bladder) without destroying its integrity.

(b) *By a vaginal incision* one can inspect and palpate the pelvic floor segment of the ureter and remove calculi.

(c) *Intra-peritoneal* access to the course of the ureter is easy of execution, however, frequently accompanied by jeopardizing conditions as regards peritoneal infection and the vascular integrity of the ureter itself and adjacent viscera. On entering the peritoneum one observes the ureters in their course shimmering through the dorsal peritoneum like white bands in direct contrast to the red arteries and blue veins.

URETERAL SURGERY.

Ureteral surgery will be limited, because the course of the ureter is extremely well protected. It will also be limited, because the only safe ureteral surgery is ureteral anastomosis or implantation of the ureter into the bladder (or some segment of the tractus urinarius or genitalis.) The direct implantation of the ureter into the tractus intestinalis is not justified by experiments. The course of the ureter might be safely changed by diverting it into the gall bladder, the patent umbilicus or into some segment of the genito-urinary tract, as the urachus, obliterated hypogastric arteries, oviduct, vagina. It might be justifiable to insert the ureter in the appendix, or into a rectum with an artificial anus proximal to it—all having their advantages and disadvantages as regards progressive infection or strictural cicatrization. The ureter may be isolated free for six inches, and retain its integrity if replaced in its original areolar tissue bed. The safest ureteral surgery is performed extra-peritoneally with several days' drainage for primary wound secretion. The ureter should be attacked in its spindles for ample wall or lumen.

THE MANAGEMENT OF VALVULAR DISEASE OF THE HEART.*

BY R. D. MOORE, M.D., CENTRAL, MO.

VALVULAR disease of the heart consists primarily of alterations in the valves or valvular orifices rendering the former incapable of properly closing the openings, or contracting the latter in such a manner as to interfere with the normal passage of the blood, producing regurgitation and obstruction respectively. These lesions are the result of an endocardial inflammation which, in turn, is usually secondary to some systemic disease, particularly rheumatism and the acute infectious diseases. Prolonged muscular strain is an important etiological factor in the young and middle-aged, sclerosis of the aortic valves often resulting from occupations necessitating great muscular exertion. Of the chronic diseases, syphilis, gout, chronic Bright's disease and alcoholic excess are instrumental in causing valvular disease. In the elderly, chronic endocarditis is the result of atheromatous or fibroid changes. Endocarditis is usually masked by the symptoms of the disease causing it, and may be easily overlooked until disturbances of the circulation direct attention to the heart.

The first step in the development of valvular disease, or chronic endocarditis, is hyperemia from congestion of vessels beneath the endocardium, with considerable swelling of the valves. There is an exudation of lymph and serum beneath, and on the free surfaces of the membrane covering the valves and chordal tendinæ. This results in a roughening of the surfaces and agglutination of the valves to each other or to the walls of the heart or blood vessels. Or a proliferation of endocardial connective tissue takes place and around these the warty growths or vegetation are formed, which, with deposit of fibrinous elements from the blood, prevent proper coaptation of the valve segments. Endocardial inflammation is usually limited to the left side of the heart in the adult, but during fetal life the reverse is the case. This explains why the mitral and aortic orifices are more frequently involved than the tricuspid and pulmonary valves, as disease of the latter is in the great majority of cases congenital.

The effect of the various lesions is practically the same, viz., hypertrophy of the heart structure and dilatation of the chambers. Usually this change takes place gradually, and functional loss is overcome by the reserve cardiac force, which in time is sus-

tained by increase in the muscular structure, Nature's effort to maintain equilibrium. Thus hypertrophy ensues, and the functional loss is said to be compensated. The hypertrophied organ, while exerting more actual force than a normal heart, has less power to accommodate itself to extra work, the reserve force being almost entirely utilized, even when the body is comparatively at rest. Thus, as the heart in valvular disease has to do nearly a maximum amount of work at all times, it is obvious that there will come a time when the muscular structures become exhausted, unable to comply with any extra demand, and compensation is said to be broken or ruptured.

If the reserve force gained by compensatory hypertrophy be only temporarily lost, the exhausted heart muscles recovering quickly, the condition is spoken of as disturbed compensation, broken compensation being applied to a continuous process. By placing the patient with disturbed compensation at complete rest, and resorting to appropriate remedies, the physiological balance can occasionally be restored in a short time. The break in the compensatory process may come on gradually or suddenly. In the latter case, death usually results at once from sudden dilatation of a ventricle or thrombosis in the coronary circulation.

The first indications of broken compensation are shortness of breath, with attacks of nocturnal dyspnea. Cough and dyspnea follow from pulmonary congestion and bronchitis. Irregular pulse occurs with dilatation of the heart. Cyanosis, venous stases, and usually dropsical effusion set in, beginning in the feet and extending upward; the abdominal cavity becomes filled, the liver congested, the urine scanty and albuminous; the patient finally dies with a general anasarca, or progressive dilatation of the heart occurs with death from asystole. The dropsical effusion varies greatly in different cases, and may not occur at all, but more or less edema is usually observed.

The prognosis of valvular heart disease is often a difficult question to decide, and is entirely one of compensation, for so long as this is maintained the function of the heart may be little disturbed, and the patient suffer slight, if any, inconvenience. Physicians considering the serious aspect, and knowing that an anatomical or organic change has taken place in the structures, are apt to underestimate the value of any line of treatment, and regarding the case as hopeless content themselves with a diagnosis of valvular lesion, and ignoring the state of the blood vessels and secretory organs, prescribe a specified dose of digitalis, and like Micawber "wait for something to turn up;" usually the loss of the patient. Again, the physician endeavoring to decide which valve is diseased is apt to neglect noting the condition of the heart muscle. After making the diagnosis, and observing secondary

effect on the entire physical mechanism, it is of no less import to ascertain the condition of the ventricular and arterial walls, observing carefully the force of the pulse and the tension in larger vessels. If possible, ascertain the condition of the coronary, for upon this will often depend the dosage of digitalis. This drug, so prominent in the treatment of cardiac disease, improves the nutrition of the heart muscle by improving the circulation in the coronary arteries. If these small arteries are in a more or less atheromatous condition, or nearly closed, more harm than benefit will arise from the administration of digitalis, it being impossible for the heart to force any increased quantity of blood through the diseased arteries. Again, if the heart muscle itself is degenerated, digitalis, if administered in the usual manner, will not as a rule improve the myocardium, for by subjecting the remaining healthy fibres to increased stimulation it may exhaust what little resource is left, and sudden death may terminate the case.

After determining the above conditions in reference to the heart, attention should next be directed to the kidneys. Repeated examinations of urine as the case progresses give more information than a single examination. Estimates of the percentages of albumin and urea, of the quantity and specific gravity, should be carefully made. These records not only aid in revealing probable conditions of the heart and blood vessels, but also indicate the ability of the kidneys to eliminate toxins and the drugs administered, the cumulative action of digitalis sometimes producing toxic effects. This alone demands careful attention being paid to the kidneys, as the urine is reduced in quantity when the system is intoxicated with digitalis.

The important point to bear in mind in treating valvular lesions is that the disease is associated with a period of progressive development, during which medicinal treatment directed to the heart is not indicated, and a period of breaking down or uncompensation. If compensation be progressive or complete, regulation of the bowels, kidneys and digestion, with careful instructions in regard to light exercise, will aid in the establishment of the compensatory process. Advise the patient to so regulate his habits that he will have evacuation of the bowels each evening, shortly before retiring. This relieves the portal system, eases the circulation, and will prove beneficial as the heart has only to propel the blood through the vessels on a level, and the extra reserve force is not called into action, thus procuring additional rest for the over-exerted organ.

At the first indication of a continuous break in the compensatory process, manifested by shortness of breath, especially nocturnal dyspnea, cough, with edematous extremities, place the patient at complete rest, regulate the secretions, and administer remedies

directed to the relief of the distressed heart and impeded circulation. Digitalis is now indicated; it supports the heart and maintains a steady, equal capillary circulation. There has been some discussion among authorities in using digitalis for the various lesions, particularly regurgitation. Osler states that "broken compensation, no matter what valve lesion may exist, is the signal for its use. The beneficial effects are best seen in cases of mitral disease, with small irregular pulse and cardiac dropsy. Its effects are not less striking in dilatation of the left ventricle, in the failing compensation of aortic insufficiency or of arterio-sclerosis. On theoretical grounds, it has been urged that its use is not so advantageous in aortic insufficiency, since it prolongs the diastole and leads to greater distension. This need not be considered, and digitalis is just as serviceable in this as in any other condition associated with progressive dilatation."

The reverse of this doctrine is argued by Porter (*Med. News*, May, 1902). He states that "in aortic lesions, either in incompetency or stenosis, there seems to be no good reason for using digitalis at any stage. Certain it is that in aortic regurgitation the increased systolic stroke cannot freely compensate for the prolonged diastolic period, and the longer time during which regurgitation can take place. Added to this are the increasing arterial tension, with its greater resistance in front of the heart, and the progressive cutting down of the nutritive supply (?) to the heart muscles, both of which, or either one alone, would be sufficient to contraindicate the use of digitalis in aortic insufficiency.

"In aortic stenosis the augmented cardiac systole might for a time force a larger volume of blood into the aorta, thus temporarily improving the conditions, but the increased work of the cardiac muscles, together with the poisoning effects of the digitalis upon the muscle fibres, and the progressively diminishing nutrition, will soon be followed by a deterioration of the cardiac muscle with an aggravation, instead of an amelioration, of the symptoms. Digitalis is of service only for a few days at a time at the longest. It should only be given to influence the heart and circulation when the arteries are very much relaxed, or systemic veins overfilled with blood. In such instances as these, it will tighten up the vessels and, by augmenting the power of the systole, will force a larger volume of blood into the arterial system. In this manner the surplus of blood can be pumped, as it were, from the venous system into the arterial. This accomplished, the digitalis should at once be stopped, and more reliable remedies used to maintain the heart in circulation. To use digitalis outside of these narrow confines, when there are so many safer and more reliable remedies is, to say the least, extremely poor therapeutics."

So much for the negative theory. In the treatment of cases,

some of which are reported below. I have followed the teaching of Osler, prescribing digitalis regardless of the lesion, provided the heart muscle is not so much degenerated as to be unable to cope with the increased stimulation. However, as in the latter theory, I have always reduced this dose as soon as possible, but as yet have not found any remedy which could be substituted completely for the digitalis, and produce the same results as far as specific action on the heart is concerned.

Strychnine is very useful, and, in some cases, seems to act better than digitalis. It is a heart tonic of great value, but its action is not as permanent as digitalis, and usually recourse to the latter has to be finally made. There is no doubt, however, that the administration of this drug is overdone. Professor H. Hare (*Therapeutic Gazette*) states that "Digitalis, like iron, has proved itself so valuable, doing good in so many instances which seemed grave, that we are wont to forget that, like most things which do good, it can also do harm, and, judging from my previous habit, and from the habit of other practitioners, I am convinced that in the great majority of instances, digitalis is administered in doses which are much too large, and often continued over a period which is far too long. It is by no means an uncommon thing to find physicians administering as much as ten, or even twenty, minims of tincture of digitalis three or four times a day in cases of marked rupture of compensation. There can be no doubt that in some cases such doses are necessary at the beginning of the treatment to meet the crisis which exists, and in much the same way that we are wont to give large doses of mercury in early syphilis, afterward cutting the dose down one-half, so it may be necessary at times to give massive doses of digitalis which, after a period, should be rapidly and considerably diminished."

This is undoubtedly correct therapeutics, but it often happened that after reduction of the aforesaid drug using three or four minims three or four times a day, the conditions and symptoms, instead of remaining stationary or ameliorating, grew progressively worse, particularly venous stasis with edema being observed.

Of late, I have not depended on digitalis for its diuretic action in reducing dropsy, but have resorted, in addition, to agurin, with excellent results in most instances.

Agurin is a synthetic product, the double salt of theobromine sodium and sodium acetate. Theobromine itself is a diuretic of value, its action being similar to caffeine, but it is superior to that drug as no toxic phenomena are produced upon the heart even from large doses. Gram, of Copenhagen, experimented extensively with pure theobromine, but found that its insolubility prevented uniform absorption. This led to further investigation.

and a salt was produced with sodium salicylate. Gram obtained excellent results from this drug, producing free diuresis in cardiac and renal affections. His observations were confirmed by other clinicians. However, the salicylic acid in the drug proved more or less a gastric irritant, and, according to some observers, retarded the diuretic action of the theobromine.

Impens, of Destree's clinic, Brussels, convinced of the efficiency of theobromine, and desiring to eliminate the objectionable features in the double salt mentioned above, made further investigations, and combined theobromine with a number of acids, finally deciding upon a combination with sodium acetate. This double salt, or agurin, produces increased diuresis, whenever a dropsical effusion exists, particularly that depending upon ruptured compensation in valvular lesions. Used in connection with digitalis, the urinary flow increases, and the dose of digitalis may be greatly reduced, depending entirely on the agurin for the diuretic effect. The administration of both may then be continued for a long time without any cumulative or toxic effect.

To illustrate the above the following cases are reported:

CASE 1.—F., gardener, 60 years old, addicted to alcoholics, brandy and absinthe, when he can get them. Diagnosis: Mitral insufficiency, hypertrophy of the heart, with dilatation and broken compensation. Passive congestion of the organs, venous stases, edema of legs, and genitalia. Pulse regular, feeble and rapid. Cough, dyspnea, and attacks of nocturnal orthopnea. Urine scanty, averaging fifteen ounces per day. Specific gravity, 1.030; no albumin or sugar. Treatment: The bowels being sluggish, one-grain doses of calomel were given every hour for four doses in the evening, followed the next morning by a saline cathartic. Calomel has a diuretic action, and the saline exerts a favorable effect upon the congestion of the internal abdominal organs, and renders absorption of other drugs more complete. Digitalis, two and one-half drachms of the infusion, with fifteen grains of benzoate of ammonia, and one drachm of sweet spirits of nitre were administered every three hours. The pulse became slower and fuller after twenty-four hours' treatment and breathing better. The urine increased to forty ounces, and the next day to fifty-five. Specific gravity much lower. The dose was reduced after the second or third day, the same amount being taken three times daily. The edema of the legs subsided with general improvement. The urine diminished to 25 or 30 ounces daily. A month later there was recurrence of the edema of the legs and scrotum. I placed the patient on five drops of tincture of digitalis, three or four times daily, and began using agurin in fifteen-grain doses, three times a day. The quantity of urine increased from fifteen ounces to an average of fifty-five per day. The

edema rapidly subsided with amelioration of other symptoms. The patient is now on this expectant plan of treatment, the digitalis being stopped occasionally, and as small a dose given as possible to support the heart. The agurin is well tolerated, and increases the urinary flow promptly, causing rapid absorption of the serous infiltration. It is true that death in this case is not far distant, but the relief afforded from the above plan of treatment is beneficial and grateful to a distressed patient.

CASE 2.—Man, 55 years old, with a history of rheumatism. Diagnosis: Aortic regurgitation, hypertrophy and dilatation of the heart. Before the break in compensation occurred, symptoms of excessive hypertrophy distressed the patient—headache, dizziness, pulsating carotid, and some precordial distress. He had taken treatment for this, and was progressing favorably until an attack of rheumatism aggravated the trouble, and probably involved the mitral orifice. Ruptured compensation came on shortly after the rheumatic trouble subsided, with death following six or eight weeks later. The point in the treatment was the control of the edema until the last week of the patient's life. Dropsy of the legs was marked, the hands and face were puffed and pitted on pressure. Cough and marked dyspnea were present. The urine was very scanty, less than fifteen ounces daily, the blood pressure being very low. Tr. digitalis, fifteen minims, was prescribed every three hours, with fifteen gr. agurin in capsules. The first dose of the latter given in powder form was vomited, but the capsules were usually retained, some nausea being experienced after taking them. The blood pressure was raised by digitalis; the pulse became fuller and more forcible. The urine was greatly increased, the daily quantity being nearly sixty ounces. This gradually dropped to thirty or forty ounces daily. Edema of the feet and legs subsided, the skin having a wrinkled appearance. Breathing became better, with fewer attacks of orthopnea. Treatment was continued—tr. digitalis three or four drops a day with ten grains of agurin. This controlled the dropsy nicely, producing a steady, equal flow of urine daily. During the last week or two its action became less marked, probably due to non-absorption and progressive dilatation of the heart.

CASE 3.—Boy, 16 years old, of a decidedly neurotic family, one brother having asthma, and a sister under treatment for hysteria. The patient had chorea, coincident with an attack of rheumatism. There is a close connection between chorea and rheumatism, and even in mild cases, endocarditis is a common sequel, the injury to the heart occurring before the seriousness of the disease is recognized or proper treatment begun. In this case the heart had undoubtedly been damaged, rendering the

patient a semi-invalid for the past four years. He had been well taken care of and compensation sustained the heart. Sub-acute attacks of initial disease, with a slow progressive endocarditis, resulted in marked injury to the mitral valve. Dilatation of the ventricle followed with all the concomitant symptoms, viz., weakness, dyspnea, and cough. The face was puffed and the legs were edematous. The urinary flow was scanty and highly acid. Treatment: The following prescription was given: Ammonii benzoat, three drachms; aquæ destil, q. s. ft. sol.; Spts. etheris nitrosi, four drachms; infus. digitalis, three ounces; simp. elix. q. s. ft., six ounces. M. Sig. One tablespoonful every three hours.

This stimulant diuretic mixture had a favorable effect on the heart and kidneys, increasing the urinary flow from twenty to thirty ounces, but the effect was temporary, the edema returning. Agurin in fifteen-grain doses was now given and small doses of tinct. digitalis to sustain the heart. An increase in urine to forty ounces took place, the amount remaining nearly stationary with the edema subsiding. General improvement occurred in the entire system. The drug was well tolerated, and exhibited no secondary effect whatever.

CASE 4.—Man, 55 years old. History of syphilis: arteriosclerosis, emphysema, and lesion of the aortic valve. Edema of the lower extremities and constant dropsy were present. The urine was scanty; the blood pressure low, although tension due to arterial hardening in the radial artery gives the impression of high pressure. The usual plan of treatment—digitalis, iodide of potash and agurin—was resorted to. The latter was given in ten-grain doses every four hours, with marked increase in the urine, and corresponding improvement in the dropsy. I cannot give the actual quantity of urine, as the patient failed to keep it for measurement. Agurin was continued in five to ten grain doses three times a day for a month, with no irritating effect. Dropsy was controlled nicely. The patient is now on the above plan of treatment, and is doing as well as can be expected, considering the seriousness of the lesions.

In conclusion I would state that while heart lesions are incurable, the proper selection of remedies and care of a case, which upon first inspection seems hopeless, not only relieves the existing distress, but will place the case on a sounder basis, a condition in which threatening or sudden death is not to be expected, and at least make life bearable. In the cases reported, while they may take an unfavorable turn at any time, the relief and improvement under the plan outlined has been marked. In cardiac dropsies, agurin has produced positive results, and its freedom from toxicity and irritating effect renders it a valuable drug to treat these cases. Prompt action on the kidneys, eliminating the increased

quantity of urine, causes rapid absorption of serum in edematous tissues. Its use in conjunction with digitalis may lead one to think the diuretic effect is due to this drug. However, in actual test (see Cases 1 and 3) agurin, given after digitalis had been used some time, rapidly increased the urinary output, thus proving its action is decidedly more diuretic than digitalis alone. Agurin, used in dropsical conditions secondary to kidney disease, does not prove equally successful. The physiological activity of the kidney must not be seriously impaired if it is to exhibit any favorable results, according to most observers.

A CASE OF FRACTURE OF THE PATELLA TREATED BY THE OPEN METHOD.

BY HERBERT SMITH, M.D., BURIN, Nfld.

AN article entitled "A Plea for the Open Method of Treating Fracture of the Patella," by Dr. F. N. G. Starr, in the March (1903) number of the *JOURNAL*, impressed me very much. On May 25th, I was called to see a fractured patella, but as the man lived six miles from here, I persuaded his friends to bring him to Burin. Having thoroughly cleansed the knee and the vicinity on the evening of the 26th, I operated on the 27th. The incision was horse-shoe shaped, convexly downward, as I thought this would favor drainage, afford a good blood supply, and also give the best view of the parts concerned. The patella was broken transversely, the upper part halved, and the inner segment of this split like a bisenit. Fortunately the outer portion (under the skin) was thickest. I removed with scissors a few fragments of bone from the various angles. The joint was very much distended with clots, and quite a piece of periosteum overlapped the upper fragments. This shows what the result would have been had the case been treated in the usual manner. In the method of sewing, I differed from Dr. Starr. The holes being drilled, I passed stout silver wire through them twice, and so obtained thorough opposition. The pull of the quadriceps was very great, and I certainly would not have brought the pieces together closely with one strand. I did not stitch the periosteum. The joint had a final douche with hot water. The skin wound was stitched with cat-gut, and dressed antiseptically without drainage. I removed the dressings on the tenth day, and found complete union, but, of course, considerable swelling. A plaster-of-Paris splint was applied, and allowed to remain for six weeks. One week after putting the splint on, I opened it on the inside. Two weeks after this, I directed the man to remove it at night, but to put it on in

the day time, and to get about with a crutch. He went fishing on the 20th of July. The motion of the joint improved slowly, and he can now bend the leg to an angle of seventy-one, and *probably* by next summer to ninety and beyond. The swelling disappeared long ago, and there is nothing now to indicate a break. The contour of patella and joint are perfect. The man goes in the woods, and can walk any distance without pain or discomfort.

I may say I did this operation with lay help only. The really difficult part of the operation was the holding of the fragments while Mr. Winter, my principal and very efficient assistant, drilled the holes. I would thank any reader to suggest some means of doing this. I am sending this report in the hope that it may encourage some fellow country medico to undertake such a case.

The Atypical Child.—Under this title, Dr. Maximilian P. E. Groszmann read a paper Thursday night (Jan. 28th), at the regular meeting of the German "Gesellig-wissenschaftlichen Verein," of New York. He said that he had suggested the use of the term "atypical" for a certain class of children, so as to distinguish them from the defectives, such as idiots, feeble-minded, blind, deaf-and-dumb, etc. While some provisions exist for the handling of the defective classes, little or nothing has been done for the atypical children. Dr. Groszmann laid much stress upon the evil effects of adenoid vegetations. He said that the observable mental and moral difficulties can largely be cured by proper medical treatment, in addition to educational measures. There are also many children whose rate of mental growth is merely slow, but who really possess much power. Neurotic and neurasthenic conditions are very characteristic of modern life with its rush, excitement, and restlessness. There is overstimulation in school and home, under which so many children suffer; of the troubles of the adolescent girl whose nerves become shattered by overstrain in study at this critical period; of youthful hysteria; perverse tendencies; morbid conditions of fear; disturbances of sleep, appetite, and concentration; contrary activities; disturbances in the motor sphere, such as twitching, jerkings, habit tic, etc. Most of these children must be taken out of the ordinary school. For some it will suffice to establish special classes, such as are being instituted at present in some of our public schools. Others need an entire change of environment, proper hygienic conditions and exercise; a general tonic regimen, physical and mental, and a very rational method of instruction, including manual and physical training, and very much individualizing. Special schools will have to be established for their benefit, and a constant co-operation of physician and educator is necessary.—*American Medicine.*

Selected Articles.

WESTWARD, HO!—THE MEETING OF THE CANADIAN MEDICAL ASSOCIATION AT VANCOUVER, B.C.*

ON account of the meeting in August of our National Medical Association at Vancouver, B.C., and the probability that it may be the largest meeting the Association has ever held, a few paragraphs as to the pleasures in store may be of interest to the profession; but, as a shrewd old Yankee said to his son, who was recounting his lessons in geography: "Say, Hiram, jest you hearken to me; that's all very good, but the best way to learn geography is to go thar."

As previously announced through these columns the thirty-seventh annual meeting of the Canadian Medical Association will be held in Vancouver, B.C., from the 23rd to the 26th of August. Definite rates have been arranged for as regards points east of Port Arthur, and the General Secretary is in communication with the C.P.R. officials in Winnipeg regarding the latter, which will be announced in due time. Although the official circular from the railway companies has not yet been received, it is expected that the date of sale of tickets will open on the 15th of August, and following days; the time limit will be two months, and will not be extended beyond that. Tickets will be sold only to delegates and immediate members of their families, on presentation of certificate from General Secretary of the Canadian Medical Association; and those who have not already done so should file their names with that official at an early date. Under arrangements made, tickets will be good going over the Canadian Pacific direct, *via* Port Arthur or *via* Sault Ste. Marie, St. Paul, thence Soo-Pacific route, Great Northern or Northern Pacific, or *via* Detroit, Chicago, St. Paul, thence Soo-Pacific Route, Great Northern and Northern Pacific, returning same route or any other of the above routes. Returning, diversion can be made *via* St. Paul to St. Louis, at an additional cost of \$10.00, and from St. Louis to Detroit, where travellers will rejoin either C.P.R. or G.T.R. to their homes according as tickets read. Should any wish on return journey to visit the Yellowstone Park, they can do so on payment of the extra charge made for the trip through the Park from the junction with the Northern Pacific

* We are indebted for a portion of this article to Rev. J. E. Starr, of Toronto, who for some years was a resident of Victoria, B.C.

Railway. Later information will be forthcoming *re* this. No other arrangements have been made so far, but the General Secretary is in communication with the Union Pacific to provide for return *via* California, Salt Lake City, Colorado, etc. If these arrangements can be made they will be duly announced. If any arrangements are made for special train, these will also be announced. The following gives an approximation of the rates from all points east of Port Arthur, Toronto, Brantford, Hamilton, Windsor, Chatham, London, Stratford, Guelph, Orillia, \$62.40; Montreal, Ottawa, Brockville, \$68.00; St. John, N.B., \$76.50; Halifax, *via* I.C.R., \$81.00; Sydney, \$83.70. Winnipeg and points in Manitoba, \$45.00, but full arrangements for this have not as yet been fixed. One certificate only will be required to be presented by delegate for his own use and the immediate members of his family; and those only who file their names with the General Secretary can be sent these certificates. The berth rate to Vancouver in each direction from Toronto and Montreal is \$17.00 and \$18.00 respectively. Mr. Mayo Robson is to be a guest of the Association, as well as Dr. J. W. Mayo, Rochester, Minn., and probably Professor Marmorek, who is to be the guest of Dr. A. J. Richer, Montreal, during the coming summer. In addition to this, already a fine list of papers has been promised, titles and names of which will appear in future issues of this journal. Those contemplating attending should send their names immediately to the General Secretary, Dr. George Elliott, 129 John St., Toronto.

No longer a youngster, Canada has donned the toga of a virile young manhood, the girdle of which is the Canadian Pacific Railway, stretching its 3,700 miles across the continent, with Winnipeg as its frontal knot.

From Toronto to Fort William, touching at that widely-known centre as a shipping point for grain; through the land of mixed farming, broken by many lakes and rivers, rich in game and well-wooded; on to Winnipeg, with its push and semblance of Western ways, and its memories of a former Association meeting; over the prairies to the Rockies 600 miles. The Grande Prairie country, along the Peace River to the north of Edmonton, contains 20,000 square miles, and has, until recently, been regarded as a district for trappers, sportsmen, and Indians only. In that story, "Conjuror's House," Stewart Edward White, with a scratch of his pen, gives an entrancing description of the Old Free Forest: "League on league into remoteness, stretched the stern northern wilderness, untrodden, save by the trappers, the Indians, and the beasts. . . . The seasons changed, all grim, but one by the very pathos of brevity, sad. . . . The snow fell; the river and bay froze; bitter iron cold shackled

the northland, the abode of desolation. Armies of caribou drifted by, ghostly under the Aurora; moose, lordly and scornful, stalked majestically along the shore; wolves howled invisible, or trotted, dog-like, in organized packs along the river banks. Day and night the ice artillery thundered, while the people of desolation crouched beneath the tyranny of winter. Then the upheaval of spring, with the ice-jams and terrors, the moose roaring by untamable, the torrents



CITY HALL, WINNIPEG, MAN.

rising, strange spirits abroad at night, howling, shrieking, cracking and groaning in voices of ice and flood. At last the sudden subsidence of the waters; the splendid, eager blossoming of the land with new leaves, lush grasses, an abandon of sweet briar and hepatica. The air blew soft, a thousand singing birds sprang from the soil, the wild goose cried in triumph. Overhead shone the hot sun of the northern summer. . . . For a brief season, transient as the flash of a loon's wing on the shadow of a lake, the

trading post was bright. . . . Like the wild roses around the edge of the muskegs, this brief flowering of the year passed."

Westward, beyond the Prairie City, "the Girdle" winds through the vast plains which scarcely a generation ago were known only to Indians, trappers and missionaries, those rolling land billows which now are gridironed with a network of "branch-lines," and dotted with fine cities, progressive towns, neat settlements, and either magnificent farms arustle with grain, or huge ranches abrowse with myriads of horses and cattle. Here is Portage la Prairie and Brandon! Down there Souris City! To the north Minnedosa and Birtle! and straight ahead Qu'Appelle, Regina, Medicine Hat, where is crossed the mighty Saskatchewan and where may be visited a perfectly-equipped, beautiful little stone hospital, the first ever built in the Central West, and reared fifteen years ago to the memory of a noble woman. At Medicine Hat, too, you change cars for the Crow's Nest route, otherwise on ahead again, through the coal tract and past the gas well aflame now for over twenty years, and beyond, nestling there in a crook of the Bow is—— But wait! the trip is not tedious, is it, or tiresome? Not an hour of it! Not a minute! Only your eyes may have become aweary with the ever-shifting panorama of surprises. But rub the strain out of them and wipe your glasses! Only when he has traversed these plains and witnessed this spectacle does a Son of Canada know the magnificence of his heritage, only then become an out-and-out Canadian! Look! yon gleam as of silver flashing in the sunlight! The glint of a distant river is it, or only a tantalizing mirage? Nay! the snow-line, the first all-wondrous glimpse of the Rockies. And ahead are yet miles and miles before the panting locomotive crosses the Bow, and at the base of the foot-hills whistles for Calgary, the Gem of the West.

Upon reaching Calgary the prairies end. Calgary is the home of the horseman. Here is the centre of the ranching district, and cowboys are seen in every direction on the streets. Says a traveller: "The great stretch of level country, the immense distances fading away in the purple horizon, the seeming eternity of plain ceases, and the rolling, grassy foothills of the Rockies succeed, glorious in their spaciousness and exhilarating air, and rising tier behind tier to the base of the great range, of which they are the mere outposts.

"As the train mounts the ascent the mountains seem to bar the way unexpectedly and invincibly. The beautiful Kananaskis Falls, close to where the Kananaskis River joins the Bow River are passed and the roar of the great rush of water is distinctly heard from the track.

"But the Rockies are still to be entered, and there seems no means of doing so. The mighty range rises right in front of the

train, and snow-capped peak and rugged crag, clothed with spruce on their lower slopes but stern and bare higher up, seem to deny, absolutely, all further progress. However, the track takes a sharp turn to the left and the train enters 'The Gap,' a narrow passage between two vertical walls of rock. In this startling fashion does the railway begin to traverse one of the most beautiful mountain districts in the world. For 500 miles from East to West for hundreds of miles from North to South the peaks extend, and Mr. Whympster, the veteran mountaineer, has declared the Canadian Rockies to be 'like fifty or sixty Switzerlands rolled into one.'



BOW RIVER VALLEY.
SHOWING C.P.R. BANFF SPRINGS HOTEL, BANFF, ALTA.

Up grade now, and the heart atrrill at the prospect of the mountains. At Canmore you really enter them, their proximity, their towering sublimity, and their silence aweing the onlooker into a sense of human littleness.

The train passes Canmore, where anthracite coal is to be obtained, then a magnificent view is seen of the 'Three Sisters.' They stand in line boldly rising from the valley, their weather-beaten heads ruggedly outlined against the sky, while the snow lies glistening white in their fissures and crevices.

Beyond, hidden in their sylvan bowers amid the heights above the Kicking Horse, are the far-famed, age-old, medicinal springs of Banff, the present home of the genial Dr. Brett.

Banff is soon approached, where many tourists may stay at the comfortable hotel that the C.P.R. has established there, but again the way seems blocked by the Cascade Mountain.

"Really it is miles away, but as the line turns toward it its huge bulk seems in the clear air quite close, and the passenger sees it approaching nearer and nearer to him with a marvellous effect. It has obtained its name from a cascade down its most prominent side.

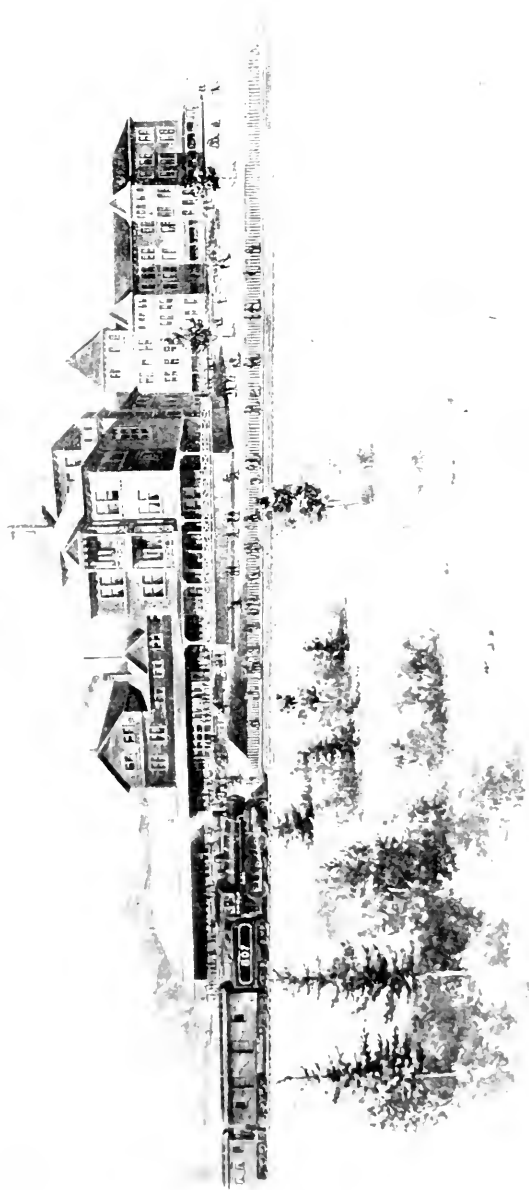
"At Banff, wise travellers will pause for a time. A delightful spot, in the very heart of the mountains, the C.P.R. has built



CAMP AT MORaine LAKE, NEAR LAGGAN, ALTA.

an excellent hotel for the use of visitors. It nestles at the foot of Mount Rundle, a great giant, the two peaks of which tower nearly 10,000 feet high, and is at the junction of the Rivers Bow and Spray. On Sulphur Mountain are natural hot springs of undoubted medicinal value, and the views are far more extensive than is common in a mountain region.

"Close by the hotel verandah, the River Bow foams and boils over its falls, and looking up stream between its banks, the snow-capped Cascade Mountain closes the vista in the distance. A few yards lower down the actual junction of the Rivers Spray and Bow takes place peacefully and picturesquely.



MOUNT STEPHEN HOUSE, C.P.R. HOTEL, FIELD, B.C.

"In the National Park the Canadian Government has taken steps to preserve some of the typical animals of the Dominion from extinction. In a corral of 800 acres is a herd of buffalo, a mere remnant of the thousands that once covered the plains, and even stopped trains by their numbers. Now indiscriminate slaughter has killed them off, and the only survivors of the race are the herd at Banff. They seem increasing and thriving, and now number thirty, so that the breed may yet be saved from destruction. In the same corral are a pair of moose, the noblest of the deer family. Happily there is not the same necessity for the preservation of these animals in the National Park, as they are not decreasing in numbers. The strictness of the provincial game-laws has done much to protect the wild animals, and it is likely to be many years yet before the advance of civilization threatens these noble animals with extinction.

"The C.P.R. has taken great pains to make all the natural beauties of Banff accessible to tourists. It is of course, except for the railway, virgin country, where twenty years ago man never penetrated; so roads had to be cut and trails discovered for the sake of the visitors alone. One of the most charming of these is the Corkscrew Drive, winding round and round through the trees in order to reach the summit of Tunnel Mountain, just across the valley from the hotel.

"Guides from Switzerland, who have been climbing mountains all their lives, have been stationed at Banff and other special spots along the line, for the express purpose of ministering to the wants of travellers. Sometimes they will take them for trips in which there is little fatigue, sometimes they will accompany hardy mountaineers, who are attacking monarchs of the range that have never yet been ascended, and are encountering difficulties that only hardy Alpinists know and love. In this latter class of ascents may be placed that of Mount Edith, that rears a sharp tooth of rock to heaven, gaunt and bare.

The "ribbon of steel" winds upward, past Castle Mountain, and sentinelled by Mts. Hector and Stephen, until is reached the summit, where, fed by the melting snows from loftier peaks, nestles a lagoon, out of one end of which flows the Saskatchewan and from the other the Columbia.

"Leaving Banff, and pressing on, a stop is usual at Laggan, the station for the famous Lakes in the Clouds. The station is 4,390 feet above the sea level, and another 650 feet in two and a half miles is made before the first, Lake Louise, is reached: while the other two, Lake Mirror and Lake Agnes, are 1,000 and 1,300 feet higher respectively. They lie like jewels resting against the face of the mountain, and their calm, placid surfaces, amid all the wildness of their surroundings, seem to breathe of peace and quiet far removed from the cares and bustle of the world below.

"Nine miles past Laggan the Great Divide of the Rockies is crossed. It is here 5,296 feet above the sea level, and gives rise to a curious phenomenon. A stream parts and sends its waters down either slope, under one or other of the arches. It is a mere



GREAT SELKIRK GLACIER AND C.P.R. GLACIER HOUSE, GLACIER, B.C.

chance whether a bubble finds its way from this point to Hudson's Bay or down the quicker route to the Pacific Ocean.

Now down the far slope of the Rockies, and into the Selkirks, the Sierra Nevadas and the Gold Mountains, the scenery wilder, more majestic, more awe-inspiring.

" Just after crossing the divide of the Selkirks by Roger's Pass, at an altitude of 4,300 feet, Glacier House is reached.

" Right behind the hotel is the Great Glacier of the Selkirks; within easy distance is the Asulkan Glacier. The mountain scenery round Glacier is superb. The hotel itself is under the shadow of Mount Sir Donald, that rises 10,600 feet, a naked, abrupt pyramid, its sides scarred by glaciers, to a height a mile and a half above the railway.

At Glacier, the ice-river held in captivity to the frost-king, and below it the famous " Loops " letting you down the mountain-side, three railway tracks visible beneath you! At Albert Canyon,



C. P. R. HOTEL, VANCOUVER, VANCOUVER, B.C.

a narrow abyss sheer down its thousands of feet. At Williams River, six hundred feet above its tumbling waters, the railway clinging to the edge of a cliff towering the same distance above it.

" Every season of the year has its own charms, and the mountains are always beautiful, but the fall of the year, perhaps, makes the most vivid impression on the memory. Then the trees put on their autumn foliage, and, as they extend but part of the way up the mountain sides, their glorious tints seem like an ornament assumed by the slopes for a purpose. So the golden hue of Lyall's larch flames like a great belt of gold along the mountain side, and he who has seen it remembers for all time the gorgeous spectacle.

“ But, hastening on out of the Selkirks, the Columbia River once more is crossed. Many points of interest are passed. Revelstoke, that gives access to the Kootenay district, famed for its mines; Sicamous, that could give as good sport or as fertile a farm as a man could desire; Kamloops, a spot the dry climate of which has restored many invalids to health and strength.

“ The Fraser River, with its ‘ terrific ’ canyons, widens out at last, a wonderful picture, with the magnificent stream keeping its course to the ocean with majestic calm, between mountains clothed now to their summits with firs.

At North Bend, the exit down the wild gorge of the Fraser, its further side edged with the old stage-coach road from Cariboo and leading into the alluvial lowlands that stretch to the sea!

“ The mountains remain in sight, beautiful still, until Vancouver itself is reached, then retire a little from our path, and begin to give way in interest to the great industries of British Columbia.”

Over there to the right now are already flashing the waters of Burrard Inlet, and while the excursionists are yet under the pleasing thrall and excitement of a trip unequalled for magnificence of scenery on any continent of earth, the locomotive is whistling for the terminus, a city of artistic homes, its water brought from the Capitan, a stream of mountain purity, and with a system of water supply and sewerage the finest in the world—Vancouver, the Liverpool of the Pacific.

Vancouver, of which the C.P.R. station and the terminus of the great transcontinental line is shown, is the centre of a number of important interests, and has a population of 27,000.

Its harbor is magnificent, and from it sail the well-known C.P.R. Empress steamships to Japan and China; the C.P.R. coasting fleet to Skagway, Alaska and Seattle, and the Canadian-Australian Line, that is building up a flourishing commerce between the Dominion, Australia and New Zealand.

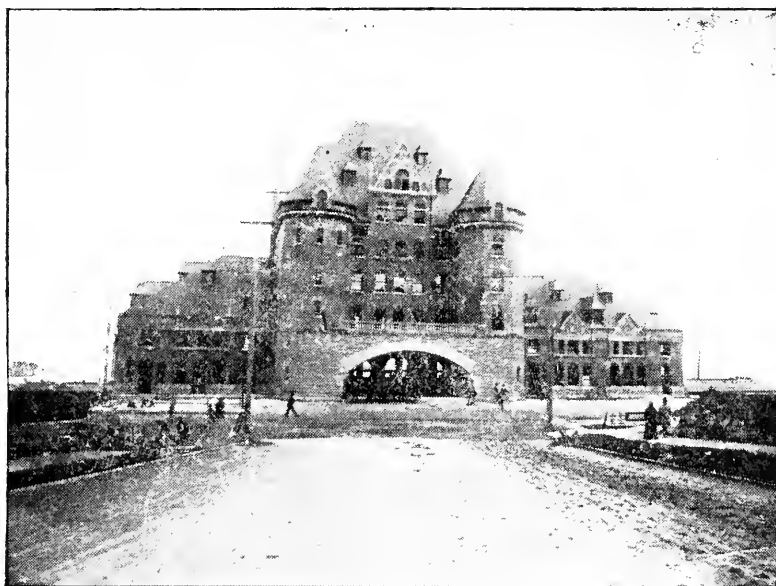
Apart altogether from its commercial importance, Vancouver is a very beautiful place, with the distant view of Mount Baker in the south and the Coast Range northward. It has possibly the most beautiful natural park in the world, Stanley Park, and here we can get some idea of one of the principal glories of the province, both from the picturesque and the business points of view.

The timber of the province is immense and seems to have been designed on the same scale as the mountains on which it grows. Valuable as it is from the scenic point of view, its commercial qualities are even greater. A “ B.C. Tooth-pick,” as the squared timber is called, is often 112 feet long by 24 inches square, or 70 feet long with a side of 36 inches. The trees themselves stand 150 and 200 feet high, and one of them would supply enough

timber to build two houses 30 feet square by 15 feet high. Naturally, with such lumber as this to be got, the industry is highly organized, and requires a large number of men.

Another very important occupation is that of salmon fishing and canning, the headquarters of which are at Steveston, near Vancouver. The salmon are, of course, caught wholesale, and after canning are sent to every part of the civilized world.

The unloading of the catch is a very beautiful spectacle. The fish lie in the boats in countless numbers, all shining and silvery. As they are shovelled on to the wharves the sun catches their wet scales, and they pour on to the ground like a stream of molten silver.



C.P.R. STATION, VANCOUVER, B.C.

The hotel accommodation along the entire route of the Canadian Pacific Railway, extending from St. Andrews-by-the-Sea (the fashionable Atlantic seaside resort) to Vancouver on the Pacific, including the magnificent Banff Springs Hotel, situated at Banff in the Canadian National Park, and complete chain of mountain resort hotels all through the Canadian Rockies, is most satisfactory. Some of the C.P.R. hotels are the Algonquin Hotel at St. Andrews, N.B.; the McAdam Hotel at McAdam, N.B.; Chateau Frontenac, at Quebec; Place Viger, at Montreal; Kam-inistiquia, at Fort William, Ont.; Banff Springs Hotel, at Banff, N.W.T.; Mount Stephen House, at Field, B.C.; Glacier House, at Glacier, B.C.; Hotel Sicamous, at Sicamous, B.C.; Moosejaw

Hotel, at Moosejaw, N.W.T.; Lake Louise Chalet, at Laggan, N.W.T.; Hotel Revelstoke, at Revelstoke, B.C.; Fraser Canyon House, at North Bend, B.C.; and Hotel Vancouver, at Vancouver, B.C. The latter will be headquarters for the approaching meeting in August, and there is nothing in the hotel line more perfect, richer, and yet more home-like, than Hotel Vancouver, the service being the best, and under the ablest management. Visiting physicians will be delighted with the treatment accorded them, the manager having decided to make the stay of members of the Canadian Medical Association, three months from now, just as enjoyable as he knows how, and assures us he will say to each guest, "Monsieur, the house is yours."

THE SOLUBLE FERMENTS OF COW'S MILK.

BY JOSEPH LESPERANCE, M.D., PARIS.

It is a well-known fact that milk is in itself a complete food, since it contains the three alimentary elements by which all life is sustained, namely, the albuminoids, the fats and the sugars. But, although human life may be indefinitely maintained by the exclusive use of milk, the seemingly paradoxical fact has been established that an artificial mixture of albumens, fats and sugars, although in the same proportions as when contained in natural milk will not sustain life beyond a limited period. The following experiment made by Lunin demonstrates this interesting fact:

Mice, as well as men, can live indefinitely on natural milk as a sole diet. But when they are fed on artificial milk containing all the chemical constituents of an excellent milk, they die in from 20 to 30 days. In this experiment Lunin prepared his milk in the following manner: The milk was diluted with water, and then precipitated by acetic acid. The flaky precipitate was then washed with acidulated water, leaving it a mixture solely of casein and fat. To this quantity of albuminoid and fatty matter, he added cane-sugar in the proper physiological proportion to represent the carbohydrates. Finally, he added the salts that are contained in natural milk, in the exact quantities in which they are found in that substance. Theoretically this artificial milk constituted a perfect food, since it contained the three principal groups as well as the salts. Nevertheless, the mice on which the experiments were made did not live, although they relished the diet and ate plentifully of the food.

Lunin was studying the role played by the mineral salts in nutrition, and at the time when he announced the result of his experience the scientific world was considerably surprised.

It is now well understood that the factor which was lacking in Lunin's artificial milk, that which was necessary in order to make this product capable of sustaining indefinitely the life of his mice, was that chemically intangible constituent, the active living force, in fact, the enzymes or unorganized soluble ferments that were destroyed by his method of preparing and treating the milk. This fact explains why sterilized milk and other sterilized foods have not fulfilled the general expectations of the scientific world. Received at first with enthusiasm by the medical profession, it was gradually shown in the course of time, that they did not constitute an ideal method of feeding. Many medical men, recognizing the lack of result without knowing the real cause of failure, returned to good natural milk, either simply diluted with water, or not. Careful observation showed that milks that had not been heated beyond a natural temperature were more easily digested and gave greater vitality to the system. It was observed that sterilized milk produced in children soft muscles, a generally irregular development and a weakened resistance to infectious diseases. Some men even stated that they were the indirect cause of infantile scurvy. And these unsatisfactory results were observed even when the very best methods of blending were being used, and the milk had been modified so as to make it, from a chemical standpoint, not only merely resemble mother's milk, but actually almost identical with it.

These facts were verified, but without any reasonable explanation of the cause. However, the work and thorough investigation to which milk has been subjected within the last few years, have thrown an entirely new light upon the subject. The constituents which are lacking in sterilized milk, or more properly speaking, are destroyed when the temperature of the milk is raised to 176 degrees F. are the enzymes, those mysterious ferments governing the equilibrium of the protoplasm. Not only in the animal kingdom but in the vegetable kingdom as well, every vital phenomenon seems to be dependent on these ferments. The grain of wheat, planted in the soil, owes its development and growth solely to these special ferments. Under the influence of soluble substances secreted by microbes in the bosom of the earth, the grain of wheat emerges from its lethargic condition. It has been shown that absolutely sterilized earth is useless for the growth of seeds and that these do not come to maturity in such soil. (Ref. Nobbe, Dresden.)

The same thing applies to the animal kingdom. Animals kept in an aseptic atmosphere and fed on sterilized foods cannot live. The quantity and proportion of albumen, of hydrocarbons and of fats may be perfect, but that particular force which separates and disintegrates them into their ultimate terms of absorption

no longer exists, and these food substances become inert. According to Kejanitzin the disastrous effect of the sterilized air breathed, continues even after the animals have again been placed in a normal atmosphere. This author explains, that in breathing ordinary air the microbes inhaled are absorbed by the leucocytes, which separate the ferments which these microbes contain and spread them through the organism where they regulate oxidation and prevent the accumulation of leukomains and other toxic principles.

It is a path abounding in beautiful discoveries that science has opened. It is found that the malignant ferments, producers of illness and death, are in reality only an accident in nature. If there exist those that are responsible for the shortening of some lives, on the other hand their very kin are they that since the creation of the universe have perpetuated species, and finally, the evolution of the higher organisms is corollary to that of the infinitely small. Although there are injurious germs whose secretions disturb the vital harmony and cause a disturbance of the physiological phenomena, yet by way of retaliation or compensation there are a much greater number of those whose secretions are of direct benefit. It is true, that as yet we know but a small proportion of these, but the list is growing and continues to grow as time passes. Let us salute, en passant, the noble germs, creators of fine wines, of good eiders, of fragrant vinegars and of savory beers.

If we have entered somewhat fully into the above considerations, it is because the ferments that are found in milk originate both in the organic cell and in the bacterial cell; the former being necessarily in the milk because they are contained in the organism and in the gland cells which give rise to the milk; the latter being accidental, but at the same time always found in the milk since they are secretions of the bacteria which exist everywhere and consequently gain entrance into the milk, many of them even before it leaves the galactiferous ducts. These bacterial ferments were thoroughly studied long before the cellular ferments, and since the observations and work of Duclaux are known intimately, they are for us less interesting than the others, and to them, the cellular ferments, we should more particularly devote our attention.

The clear ideas which we at present possess regarding the soluble ferments of milk, have taken a long time to come to light. While the first work on the digestive ferments of the human alimentary canal dates back some 50 years, only five years have elapsed since any serious attention has been given to those of milk. After having discovered ptyalin in the saliva, pepsin in the gastric juice and the tryptic ferments in that of the pancreas, science

rested. Bacteriology acquired a tremendous impetus from the ideas of Pasteur; a keen interest was aroused that engrossed all thinking minds. But by a return to the original ideas, bacteriology in discovering the secretions of the microbes, brought these same thinkers back to the study of the secretions of the organic cells, and demonstrated that the two are identical and that there is no biological difference between the constituent cells of our organism and those minute cellular individuals, the microbes.

Babcock and Russell, of Wisconsin, so far as we can learn, were the first to demonstrate the presence of soluble ferments in milk.

In the earlier days the various phenomena that take place in milk were explained as being solely chemical,—the reaction of one body on another. Then, in the time of Pasteur, the facts became a little better known, and all the transformations of milk were ascribed to the action of bacteria. Lloyd and Freudenreich made known the considerable part played by bacteria in the maturing of Cheddar and Emmenthaler cheeses.

Babcock and Russell, struck by the fact that all the changes taking place in milk could not be explained by the activity of bacteria alone, undertook a long series of experiments in order to elucidate the apparent difficulty. They experimented partly with natural milk and partly with milk that had been worked by cheese-makers. To samples of fresh milk they added in some cases chloroform, in others ether, both of them substances which arrest bacterial growth. They found that coagulation of the milk set in within a few days without any corresponding increase of acidity. In these experiments the anesthetics would have prevented coagulation if that phenomenon were due entirely to bacterial life.

Then, as Conn had announced that saprophytes possessed the power of secreting an enzyme analogous to rennet and capable of coagulating milk, and as Duclaux in a lengthy communication had brought to light the important role played by the saprophytes in the phenomena of the maturing of cheeses, Babcock and Russell determined to investigate the question as to whether the coagulation of the milk in spite of the use of the anesthetics had been caused by bacteria. They took every precaution, surrounding themselves with every safeguard in order to prevent the contamination of the milk by saprophytes. The udder of the cow was carefully sterilized, the first milk was thrown away, and then the balance was milked direct into bottles containing an excess of an antiseptic preparation. By this process the bacteria with spores which produce the coagulating ferment were excluded, and if by chance any of them, coming from the lactiferous ducts, reached

the milk, they were immediately paralyzed. Under these conditions which would eliminate all bacterial activity, the same phenomena of coagulation and transformation of the casein took place as before and in the same time. These experiments were repeated with all antiseptics known to arrest microbial reproduction such as fluoride of sodium, salicylic acid, etc., and the results were always the same. Moreover, in proportion to the age of the various samples of aseptized milk, these exhibited a gradual increase in the percentage of albumoses, formed at the expense of the caseine. For example, in milk 12 days old, the proportion of the products of this digestion was 30 per cent., while in the same milk, 240 days old, the proportion was 63 per cent. Babcock and Russell then arrived at the conclusion that besides the organized ferments, there are in milk other ferments which are inherent in the milk itself. In pursuing their investigations further, they found these ferments in the milk of all the mammals that they studied (ass, mare, goat, sheep, sow, buffalo and woman). In the cow's milk it is particularly abundant and more easy to isolate.

To this ferment they gave the name of Galactase and classified it in the same family as Trypsin, the pancreatic enzyme.

This view of the matter was confirmed in the very same year. Bertrand and Bourquelot, without knowing anything of the work of Babcock and Russell, demonstrated by other processes the presence in milk of oxidising ferments. As long ago as 1881, Arnold had found that fresh cow's milk became blue on contact with tincture of guaiac, and that this reaction is no longer produced if the milk is heated to a temperature of 80 degrees C. In 1890, Kowalesky established undeniably that the same reaction takes place in milk when mixed with old turpentine. But at that time this reaction was attributed to the presence of ozone. Later it was recognized that free ozone cannot exist in the system, and Bertrand and Bourquelot demonstrated that the reaction of milk towards oxidising agents is due to the presence of a ferment. However, this is not a direct ferment, but rather an indirect ferment. Of itself it is powerless to oxidise oxidisable substances without the assistance of an intermediary agent highly oxygenated, such as the tincture of guaiacum, old turpentine or oxygenated water. But when these agents yield their oxygen to this ferment, the latter is able to hold it and in consequence to oxidise any oxidisable substance with which it comes into contact. For example, if some drops of tincture of guaiac are added to fresh milk, this does not change color. But if at the same time some drops of oxygenated water are poured into the milk, a blue color begins to show itself at once. The ferment has absorbed a por-

tion of the oxygen and coming into contact with the guaiac has oxidised the latter. Thus this ferment belongs to the family of anaerobes. At this time Dupouy, and in the following year (1898) W. Raudnitz, studied this oxydase and found that it is present in the milk of the goat, the cow and the ewe, and that it is absent, or that its action is very weak in the milk of the ass, the mare, the dog and in human milk. Marfan and Gillet have also studied this ferment and confirm its presence in the milk of the cow.

In 1901, Spolverini took up this line of research and recognized in cow's milk the presence of pepsin and trypsin. Working on milk aseptically treated and in which perfect asepsis was maintained by thymol, he placed in a drying-stove at 104 degrees F., various quantities of milk, some acidified for the research for pepsin, others alkalized for the research of trypsin. After a certain time he determined the quantity of soluble albumen in it by the biuret reaction. A boiled sample served as a means of verification. By proceeding in this manner, Spolverini found that the pepsin and trypsin were to be met with in all the milks, but were most abundant in cow's milk. The proportion diminishes in the milk of the dog, the goat, human milk, and that of the ass.

Besides those ferments of which we have already spoken, still another is to be found, which Spolverini identifies with the glycolytic ferment of the blood. If the sugar contained in a given quantity of fresh milk is determined, and the latter is placed in a drying-stove at a temperature of from 38 to 41 degrees C., and the quantity of sugar is again determined after a lapse of 24 hours, it will be found that the quantity of sugar has considerably diminished. A portion has been destroyed. This is by the action of a glycolytic ferment. This ferment shows itself fairly active in cow's milk, but slightly less so in other milks. Moreover, in 1901, Luzzati, Biolchini and Marfan, and in 1902, Gillet as well as Spolverini have separated still another ferment that belongs to the family of hydrolytic ferments. Under the influence of this ferment monobutyrim resolves itself into butyric acid and glycerine. These authors operated by distilling a mixture of milk and monobutyrim and in them determining the acidity of the distilled products. They encountered this reaction of splitting up monobutyrim in the milks of the woman, dog, cow, goat and ass, stronger in the former and less energetic in the latter. They have agreed upon giving this ferment the name of lipase, a name which Bourquelot had given to a ferment of the same nature, which Hanriot was the first to discover in the blood.

Summing up the various researches and discoveries made in connection with cow's milk, we find then, that this milk contains

numerous ferments. We have determined definitely the presence of trypsin and of pepsin, of the lipase and oxidising ferments and of a glycolytic ferment. There is, moreover, reason to expect further discoveries in this direction, and this is not improbable when the extremely complex nature of milk is taken into consideration.

THERAPEUTIC NIHILISM vs. ALKALOMETRY.

THERE is, unfortunately, at the present time, a general tendency upon the part of some of the profession to throw doubt upon the curative properties of medicines; to add one after another to the list of diseases not amenable to treatment by drugs, and thus, while professing to cure, avowing their inability to do so.

The lawyer does not, when he undertakes to obtain relief for his client, hold forth the same day on the platform or in some publication and express it as his opinion that there is no relief for this same ill in law. In no other profession is there the tendency to deny the possibility of those very results the members accept fees to obtain. That Medicine—anything which has to do with the human body and its changes and decay—is subject to uncertainties which beset no other profession is true, but the doctor worth calling a *doctor* must either believe in his remedies or live a life of gross deceit. To smilingly take a man's money and press a suit in court when you know in your heart you cannot possibly win it is bad enough; but to take a man's money and his life in your hands, leading him to suppose you can cure him, when in your inner heart you have not the slightest belief that you can do so, is, to say the least, non-ingenuous—yea, more, *it is damnable!*

The "nihilist" does not flatter himself. If he believes what he says he does believe, then he should stop practising medicine! There are men who know their therapeutics well enough to believe in the remedies they use. That certain drugs produce certain results in certain conditions is a fact. That some produce one effect in a sound person, and another in a diseased one is also known: but quite as positively understood is the fact that, even under adverse circumstances, certain drugs will, in certain doses, produce certain results in the human being, well or sick. The man who denies this, brands himself as ignorant. Then, if he allows that such a condition obtains in some cases he must not assert that other drugs do not act just as surely, because he has not found such to be the case.

There are many fluid preparations of vegetable remedies; some are potent, some are not, but not one of them can stand upon the

shelf for six months—subject to occasional depletion and handling—and be of the same strength as at first. Either stronger (through evaporation) or weaker (through change) they must be. Then it is impossible for two manufacturing chemists to make tinctures or fluid extracts which will be absolutely alike. Even the preparations of one house will vary according to the crude material used.

Such drugs as are active medicinally are active because they contain one or more active principles. Grown on a certain soil, in the sun, and in a dry season, there may be present in a given quality 10 per cent. of that active medicinal principle, while the same drug grown on another soil, in a shady spot, in a wet season, will contain 3 per cent.—and *vice versa*. Did you know that, ye scoffer, you who believe or pretend you do, that the label determines the reliability of the medicine rather than the therapeutic result from the bottle content?

The *Clinic* is not alone with its danger cry! Read the following from the *Journal of the American Medical Association*, by one who knows and, like the *Clinic*, stands ready to speak of the faith that is in him:

“ WORTHLESS GALENICAL PREPARATIONS.

“ New York City, Jan. 29th, 1904.

“ To the Editor:—In a recent communication printed in the *Journal of the American Medical Association*, I stated that one of the causes of therapeutic nihilism and therapeutic chaos was to be found in the inferiority of some drugs and in the great variability of galenical preparations. I pointed out the great importance of ordering galenical preparations from strictly reliable sources and referred to the advisability of prescribing the active principles of drugs in those cases where the active principles have been isolated. I want to give an additional illustration which very forcibly illustrates the correctness of my position. As is well known, the solid extract of *nux vomica* of the U.S. Pharmacopeia must contain 15 per cent. of alkaloids. Prof. Frederick J. Wulling, of the University of Minnesota, has just reported the analysis of a sample of extract of *nux vomica*, which contained *not a trace of alkaloid*, instead of 15 per cent. (The italics are Professor Wulling's.) The explanation given is that the extract was undoubtedly heated to too high a temperature in the process of evaporation. Many extracts become entirely worthless if heated too high, and this is done only too often by careless manipulators. Is it any wonder that some physicians become therapeutic nihilists? Suppose a physician uses an extract like the above in gradually increasing

doses, and fails to get any effect whatsoever—is it any wonder that the seed of skepticism is planted in his mind? Let the physician not condemn his weapons before he is sure that he used the right weapons and that they were properly tempered.

“WILLIAM J. ROBINSON, M.D.

“119 East 128th Street.”

If the tincture or fluid extract is therapeutically “worth a brass button” it is so because it contains, to each dram, a certain quantity of this active principle. Whether it be a glucoside, resinoid or alkaloid matters nothing. The “therapeutic nihilist” gives medicine—any old thing!—he gets no result. He gives it again—another brand—he gets result. Again he tries—and fails. Perhaps his diagnosis was at fault; but more likely the remedy was not what, at heart, he thought it was. Here, then, is the main and underlying cause of this curse of modern medicine, therapeutic unbelief—*uncertain and varying medicines*.

Allowing that the man who is giving the remedy knows *how* to give it and when to give it, granting that he is not one of those doctors who give a certain prescription in measles because they were told at school that this was “a good thing for that disease;” granting that the doctor has a proper knowledge of pathology, therapeutics and diagnosis, allowing all this, is it not possible and even probable that constant failure with uncertain drugs will still breed unbelief? Absolutely so!

Then, excluding the poor diagnosticians, the men who fail to achieve results because they give the wrong (even though potent) thing at the wrong time, we have, as “therapeutic nihilists,” those intelligent though somewhat short-sighted men, who disbelieve because their good sense tells them that the remedies they give to obtain certain results fail to do the work. What do these men do? Some go on and practise, dipping here and there into the therapeutic pool, experimenting here, and making clinical tests there, and smiling cynically as they write the same old prescription and pocket the fee! Then, “in meeting,” they come out and say “there is nothing in medicine,” and that “the man who professes to cure disease with drugs is no better than he should be.” *Are they?*

Then there are other men—men who read, think and investigate—who see the weak point in their armament and remedy it! They discard crude drugs and uncertain preparations and use the very active principles themselves.

Did ever anyone hear of an Alkalometrist being a “therapeutic nihilist?” As likely the Czar of Russia not to believe in himself and his methods! These men realize that medicine has been an “inexact science” because the weapons used were

inexact. They have changed from the blunderbuss to the rifle and they achieve exact results. One dram of wine of ipecac may do what it is expected to do—to do it, however, may take three drams, all depending upon its emetine strength—no emetine, no efficacy. The “therapeutic nihilist” gets inert wine of ipecac, gives a teaspoonful, fails and becomes a more blatant nihilist than ever. The Alkalometrist uses emetine in exact dosage and does what he wants to do. So with nearly all the more valuable drugs. Give the active principle when and as indicated and exact (curative) results must and will follow!

We have the benefit of the years and years of experience of the “cut and try” men. We do know that such and such a drug has certain properties, and that if given in a certain dose it quite often did certain definite things. Sometimes a dram would give very marked results, sometimes the same amount had less evident action and sometimes it failed altogether; and *we know why—because the active-principle strength varied*. We extract the active principle in its purity and the same results follow the same dosage under the same conditions every time. That’s changing medicine from an inexact to an exact science.

For “therapeutic nihilism” there is but one remedy—*Alkalometry*! Not that any Jack, Tom or Harry can grab a few alkaloids and, by giving them, achieve results beyond the best of the old-method men. To hit a mark with a Mauser ball requires better aim than is needed with an old Queen Bess and a handful of slugs. The Alkalometrist shoots with the most powerful weapons and his eye, brain and hand must be well trained and practised.

To do this, close diagnosing and an intimate acquaintance with therapeutics and pathology are necessary; that is another of the beauties of Alkalometry; but, these being present, the science of medicine has, for the Alkalometrist, been simplified 50 per cent. And the results? Well, twenty-five years from now, when instead of twenty thousand there are two hundred thousand doctors using alkaloids, all this will be apparent in the marked diminution of the mortality records and in the betterment of the doctor and his patron.

As therapeutic nihilism can be abolished by nothing so well as by Alkalometry, perhaps nothing will so speedily make Alkalometry a necessity to the profession at large as the present ever-growing and blatantly-expressed therapeutic unbelief, Christian or other science, quackery and skull-duggery of all kinds that preys unceasingly upon the legitimate medical profession through their inroads upon the ever-credulous, ever-gullable and long-suffering public at large. *Let's all wake up!—Alkal. Clinic.*

A CASE OF DYSMENORRHEA.

BY DR. LUCY HALL-BROWN, BROOKLYN, N.Y.

Miss J., aged 17, has suffered for last three years from a severe form of dysmenorrhea. The pain was so severe that the body would be bathed in cold perspiration, and the patient would appear to be upon the border of collapse. Hypodermic injection of morphine alone gave relief.

She had been in the hands of an able gynecologist, who, among other attempts to relieve her, had dilated the cervix and inserted a stem pessary, but no relief followed.

The patient slept badly, was extremely nervous, and so erratic in behavior as to cause her family and friends extreme anxiety.

The Chattoonooga vibrator was applied to the fourth lumbar and to the upper dorsal region, also anteriorly over the ovarian regions and the liver.

After the third treatment she slept soundly all night. Since beginning treatment her menstrual periods have been without pain. In all she has had eighteen treatments.—*Journal of Advanced Therapeutics*, April, 1904.

The Visit of Professor Ehrlich to Deliver the Herter Lectures at Johns Hopkins Hospital.—Professor Ehrlich, who is the director of the Institute for Experimental Therapeutics in Frankfurt a. M., Germany, was invited by the University of Chicago to deliver an address on immunity on the 18th of March, and was honored with the degree of LL.D. from that institution. He was also entertained by the University of Ann Arbor, and on his way to New York by the members of the Medical Faculty of the University of Buffalo. On the 1st and 2nd of April he was the guest of the Association of American Pathologists and Bacteriologists, which held its annual meeting in New York, and delivered an address on the therapeutics of trypanosomiasis on the basis of experiments carried out by Shiga and himself. On April 12th, 13th and 14th Ehrlich delivered the Herter Lectures at the Johns Hopkins University (in McCoy Hall, 4.30 p.m.). The subjects were: (1) "The Mutual Relations between Toxin and Antitoxin;" (2) "Physical Chemistry versus Biology in the Doctrines of Immunity;" (3) "Cytotoxin and Cytotoxic Immunity." The lectures were delivered in the German language. On April 18th a banquet was tendered to him by the German Medical Society of the City of New York. On the 19th he was the guest of the Harvard Medical School. He sailed for Europe on the 26th. He was accompanied by wife and daughter.—*N. Y. Med. Jour.*

The Canadian Journal of Medicine and Surgery

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Editorials.

PROFESSIONAL WORK WHICH IS NOT PAID FOR.

IN the March number of the *Maritime Medical News* (Halifax, N.S.), we notice an article expressing satisfaction with the defeat of an attempt to impose compulsory notification of births upon the physicians of St. John, New Brunswick. It appears that last March a number of the physicians of St. John had been haled before the police magistrate for refusing to report the

births which had occurred in their practice. The prosecution was taken under, and by virtue of, the Vital Statutes Act, recently enacted by the Legislature of that Province; but, upon representation by counsel, the information was withdrawn on the ground that the exclusive right to legislate upon vital and statistical matters does not belong to the New Brunswick Legislature, but to the Parliament of Canada.

The registration of births is a necessary adjunct of civilization and, if the medical profession of St. John, or of any other municipality in New Brunswick, refuse to register births, they should give satisfactory reasons for their refusal. We do not think they can do so. The mere recording of the fact that a child has been born is very easy, calls for no professional knowledge, and, although it is of considerable value to the State, puts the medical practitioner who does it to but little inconvenience. The legal defence put forward by the medical profession of St. John, one which had the merit of being successful, is quite another matter. If this defence is valid in New Brunswick, then, by similar reasoning, the Act respecting the registration of births issued by the Registrar-General of Ontario is invalid, and the collection and registration of births in Ontario is continued and carried on largely owing to the good-will of the medical practitioners.

An associated question demands our consideration. In the Ontario Registration Act, it is also provided that "every duly qualified medical practitioner, who was last in attendance during the last illness of any person, shall forthwith, on notice of the death of such person, send to the Medical Health Officer of the municipality in all cities, towns and villages, for inspection and subsequent transmission to the Division Registrar, or, in case there is no Medical Health Officer, and a death occurs in a township from a non-contagious disease, then direct to the Division Registrar of the Division in which the death took place, according to the form prepared by the Registrar-General, to be provided by the Division Registrar, who shall be furnished with such forms, and who shall supply them to the qualified medical practitioners resident within his division."

It is stated in another section of the Act that refusal or neglect to report a death within the time required shall leave a

medical practitioner liable for every such offence to a penalty not exceeding \$10 and costs.

It will be readily acknowledged that the registering of a death calls for more knowledge than the notification of a birth; the latter is the mere announcement of a very simple fact, the former calls for accurate professional knowledge, before it can be done in a proper way. To be valuable, statistics of mortality must be accurate. The motto of the medical statistician should be, "*Causas mortis docebo*," but the cause of death must be properly stated to him by the medical practitioner before it can be properly classified. So that, in this particular, the entire value of mortuary statistics depends on the clearness and certainty with which medical practitioners supply the required information. The latter are the chief and principal agents in the matter, as statistics of causes of death, in particular, are wholly dependent for accuracy and scientific value upon the knowledge expressed, and upon the carefulness and precision in the statement of causes of death in their certificates.

That there is much lacking in this respect anyone familiar with the mortuary statistics of life insurance companies will readily admit. That much schooling in the science of medicine and a more careful recording of professional observations among practising physicians are requisite, seems equally true. The student will have to be grounded in the knowledge of this subject while he is yet at college, instruction being supplemented by practical work in the classification of causes of death, and in the tabulation of statistics. When the student becomes a practitioner he will have a more definite knowledge of the purposes and uses of registration and of how far the value of the recorded data and the resulting statistics are dependent on him.

To secure his interest and hearty co-operation in the compilation of vital statistics, would it not be more advantageous to have his love rather than his fear? Would it not be preferable to offer him a small fee for his labor, rather than to threaten him with a fine for non-compliance with the law?

Another piece of professional work for which fees are not given in Canada, is the compulsory notification of contagious diseases. The prompt reporting of these diseases to the municipal health department is the surest means of preventing extensive

outbreaks—in fact, it is the corner-stone of the hygienic edifice. For example, the people of Toronto are vitally interested in the stamping out of diphtheria, and the civic health department cannot secure this desirable result, unless notification of each case of the disease is given by the attending physician. The interest of a physician in a case of diphtheria is not similar to that of the civic board of health. The physician's interest lies in curing the disease; the board of health tries to prevent the spread of the disease. Hence, if the people of the municipality wish that their health department should do efficient work, they ought to secure legislation providing that physicians who report cases of diphtheria shall be remunerated. In England a medical practitioner is entitled to a fee of 2s. 6d. for reporting a case of diphtheria. There is no reason why a physician in Canada should not get a fee for doing similar work. Philanthropy is a fine thing, but, physicians should be allowed to choose their opportunities for exercising it.

J. J. C.

LOCKJAW CURED BY DRUGS.

IN *The Daily Medical* (March 5th), we notice the report of a case of lockjaw treated successfully in the City Hospital of St. Louis, Missouri, by the use of anti-tetanic serum, combined with morphine, chloral hydrate and other antispasmodics. The patient, a painter, had fallen and broken his thumb, December 9th, 1903. The injury did not receive careful attention, and on December 20th, eleven days afterwards, the patient exhibited symptoms of lockjaw. In spite of the vigorous use of anti-tetanic serum, his condition became worse, and on January 4th, 1904, his jaws completely locked, and his neck became rigid. The anti-tetanic serum was continued, and, by the use of morphine, chloral hydrate and other antispasmodics, convulsions were averted until January 13th, 1904. The convulsions were not severe at that time. The convulsions recurred several times, but by keeping the patient under the influence of the drugs, a fatal termination was averted, and finally the locked jaws began to relax. From that time onward, recovery became assured, and the patient recuperated enough to be discharged (March 2nd, 1904), sixty-three days after the battle with tetanus had begun.

A similar case occurred in the practice of Dr. Potherat, Paris, and the patient was presented to the Surgical Society of Paris, February 24th, 1904 (*La Presse Medicale*, 2 Mars, 1904). This patient, a lad of sixteen, was attacked with stiffness of the jaws eight days after he had received a wound in the hand from a pistol-shot. Subsequently, his jaws became locked and convulsions appeared. After admission to the hospital, an injection of 10 c.c. of anti-tetanic serum was given him, but without the slightest benefit. Dr. Potherat then instituted the old treatment with large doses of chloral hydrate. The wound was cleansed, and upwards of a score of bits of lead were removed from it. The patient was then placed in strict isolation and treated with very large doses of chloral hydrate, as much as 30 grams a day. After the third day, the symptoms of lockjaw began to yield. Treatment with chloral hydrate, the doses varying from 10 to 15 grams a day, was kept up for thirty days longer. At the time when Dr. Potherat's patient was presented to the Society of Surgery, seven weeks had elapsed since the receipt of the injury which had caused the lockjaw.

During the subsequent discussion on Dr. Potherat's paper, Drs. Bazy, Labbe, Lucas-Championiere and Terrier expressed great confidence in the effects of isolation and heroic doses of chloral hydrate in the treatment of tetanus. None of these surgeons felt any confidence in the therapeutic powers of the anti-tetanic serum, although some of them thought that it might exercise a preventive influence. Dr. Terrier would not concede even that small merit to anti-tetanic serum. He cited the case of a wounded patient in his practice in whom preventive injections of serum failed to prevent an attack of lockjaw, two months after the receipt of the original injury. The lockjaw did not yield to intra-rachidian injections of serum, which were administered with great difficulty owing to the contracted condition of the muscles of the patient's trunk. After receiving very large doses of chloral hydrate, Dr. Terrier's patient finally recovered. Dr. Reclus, who also discussed the paper, stated that he had seen lockjaw supervene two weeks after the administration of an anti-tetanic, preventive injection.

Since the dawn of antiseptic surgery, lockjaw has become less common than formerly. Sometimes, however, lacerated and

punctured wounds, frost-bites and burns, which may have been exposed to infection by the Nicolaier bacillus, are not brought to the surgeon's notice until the mischief is done. Should lockjaw supervene, the battle with the disease will be protracted in any case, and the attending surgeon ought to be sure of his weapons of defence. Hence the satisfaction we feel in referring to the eulogy of chloral in tetanus expressed by the surgeons of St. Louis and of Paris. So good an authority as Lucas-Championiere says that even M. Nocard, the inventor of the anti-tetanic serum, has no faith in the therapeutic value of this serum in tetanus. A few cases, it is true, have been reported, in which cure has resulted from its use; but, in these successful cases, doses of the serum amounting to 500, 900, and even 2,500 grams were given, and generally in the form of intra-cerebral injections.

The natural inference from these data is that, although the prognosis of tetanus is always unfavorable, its prominent symptoms—lockjaw and convulsions—may be controlled by heroic doses of chloral hydrate. Chloroform may also be given to prevent the onset of the convulsions of tetanus. It goes without saying that the site of the wound or injury, from which tetanus has developed, should receive the most careful antisepsis: any foreign body, spiculum of bone, or other cause of irritation being promptly removed.

J. J. C.

NATURAL ABILITY AND SKILL vs. POLITICAL PULL.

THE following editorial appeared in the St. John (N.B.) semi-weekly *Sun* of March 2nd, 1904, and will doubtless interest our readers, many of whom feel that, in the matter of similar appointments in our own Province a like state of affairs has frequently existed, and that those, in whose hands the giving of such appointments lies, do not sufficiently consider the question of ability on the part of prospective appointees, as much as they do political considerations. Natural ability, skill and competence should invariably come first in considering whether the candidate is suitable or not, the Government, at the same time, always bearing in mind also that those longest in the service, and therefore the best fitted for such work, should have the preference over neophytes who may be better able to do, what seems to be, the necessary wire-pulling:

"About a fortnight ago all the St. John papers announced that the Government had decided to appoint Dr. J. B. Travers to the position of superintendent of the Hospital for the Insane. The statement, which first appeared in the *Globe*, was said to have come from an authoritative source. George Robertson, M.P.P., a day or two later at a public meeting pronounced this report 'scandalous,' and declared that no action of the kind had been taken. Nevertheless there is a persistent belief on the part of many friends of the Government that the matter has been arranged, and that the appointment will soon be formally announced.

"Under these circumstances it is difficult to discuss the subject without giving it the appearance of a personal question. Yet it is no reflection upon Dr. Travers as a man or a doctor, to say that the time has come for the appointment of a trained and skilled alienist to this position. Some five hundred patients afflicted with mental disease are always under treatment in this hospital, and it hardly needs to be argued that they should be under the care of a specialist in mental diseases. If the institution were a hospital for the treatment of diseases of the eye or ear, or for the cure of cancer, or for the straightening of twisted limbs, appropriate superintendence would be obtained. How much more should this be the rule in a hospital for insane people, whose malady is so much more difficult to understand and to cure, and so much a greater calamity than a purely physical disease. It would not be more absurd to appoint a dentist to superintend an orthopedic hospital than to place a general practitioner in charge of a hospital for lunatics.

"Four successive superintendents have been appointed by the Province over this institution. Not one of them could be thoroughly qualified, though at the beginning there was more excuse for the appointment of a superintendent who, so far as this class of disease goes, was a mere layman. Fifty years ago it was an advance to establish a home of any kind for the insane, and the principal object then in view was their shelter and the protection of society. But even then, as Rev. Mr. Phillips has shown in his paper on the care of the insane, Dr. Peters, the first of the New Brunswick superintendents, expressed the opinion that a man in his position should have been qualified by special study and ex-

perience in the institutions of Europe. The Government and the people of this Province should now have reached the point at which Dr. Peters arrived before most of the Provincial ministers were born.

"The leader of the Government has begun an investigation of the affairs of the New Brunswick Hospital for the Insane. This enquiry, which has not been completed, must have been undertaken for good and sufficient reason. Whatever finding may be reported by Mr. Tweedie, he will not be able to convince the people that the hospital is as well managed as it ought to be, so long as he makes the superintendency a mere prize of politics and fails to obtain a skilled and trained specialist for the chief position.

"We are not saying that the patients are badly cared for physically, or that they are not well fed, or they are treated with unkindness. These are questions which Mr. Tweedie may perhaps determine in the course of his investigation. But the hospital is not merely a mere place of detention and a boarding-house. Like other hospitals, it should be a place where patients go to be cured, and where those who are curable should have their malady studied, and be treated with a view to their restoration to health just as is done in the general hospital with patients taken there to be cured. It may of course be said that the staff is inadequate for such service, and that the environment of an insane person surrounded by other insane persons is not favorable to cure.

"But that is no reason. The main idea of the hospital should be the idea of cure. The care and detention of the incurable insane should be subsidiary. With the staff and buildings as they are a specialist who has been trained to this particular business should do better than an amateur. With an adequate staff and an ideal equipment a competent and trained superintendent would still be necessary.

"Of course it will cost more to have the work done right. But it costs the Province from \$100 to \$200 a year for each patient in the hospital who might be cured and sent away. That loss is but a fraction of the injury inflicted upon the family of the patient, or the patient himself, and upon the country at large."

W. A. Y.

EDITORIAL NOTES.

The Cigarette in Canada.—The enormous increase in the manufacture of cigarettes in Canada (138,000,000 in 1902, 178,000,000 in 1903) and the evil effects on minors which result from the smoking of cigarettes, formed the nucleus of a discussion in the Canadian House of Commons, March 23rd, 1904. In closing the discussion, Sir Wilfrid Laurier stated that "the Minister of Justice had been looking into the matter, but had been unable as yet to find any remedy which could be submitted to the House. Perhaps at some future date he would be able to give some information to the House on this subject." Although no prohibitive enactment may ever be made against cigarettes by the Canadian Parliament, the reports of this discussion which appeared in the newspapers of the country will attract the attention of boys and young men, and will set them thinking. When men of culture, leaders of opinion in the House, and in the professions, express disapprobation of cigarette-smoking, and condemn the use of tobacco as injurious to the health of the young; when pointed reference is made to the Chicago Post Office and to the great railway corporations in the United States, which have refused to countenance the use of cigarettes by their employees, young Canadians are likely to reject a habit which may prove injurious to their health and will certainly be detrimental to success in many important vocations. Parents, school teachers, and municipal authorities should try to keep down the practice of smoking among boys. To be consistent in his prohibition, a father should not reprove his son for cigarette-smoking, while he continues to indulge in pipe or cigar several times a day. Example is stronger than precept. Tobacco-smoking, particularly cigar-smoking, gives an odor to the person and clothing of the smoker which to non-smokers is repellent. One who smokes every day cannot properly estimate the effect of this odor, but if he gives up smoking, in a week or so his sense of smell will be offended by stale tobacco. Physicians who smoke ought to consider the effects they are likely to produce on the olfactory nerves of women and children with whom they come in contact. Why should the odor of a physician's breath or clothing give the lie to his carefully-washed hands and trimmed nails?

The Metric System.—We learn from the *British Medical Journal* (February 27th, 1904), that the Metric System Bill was read a second time in the House of Lords, on February 23rd, 1904, and although finally consigned to a select committee, it would seem that we have advanced a stage towards the compulsory adoption of the system. The change has been impending for some years. In the last edition of the *British Pharmacopeia* (1898), the quantities of officinal preparations were given according to the metric and imperial systems, so that there has been a gradual education of the pharmaceutical and medical professions in the direction of the metric system of weights and measures. Should the metric system be introduced into Canada, the doctor and druggist will have to do some hard thinking. Some ludicrous mistakes will occur before scruples, drachmas and ounces can be relegated to the lumber-room of the brain, and a brand-new decimal system substituted in their place. It may be that N. S. and O. S. prescriptions will compete with one another, the former being arrayed in the decimal fashion, and the latter in the good, old, archaic signs and symbols. The writing of a prescription in the new style will call for a little more of the author's brain tissue than one written in the old style, though it will not secure him a larger fee, so that the change to the metric system will be rather a loss than a gain to old fogies. As far as school children are concerned, the metric system will be a gain. They will not be obliged to learn tables, but being trained to calculate in the decimal system will be saved a good deal of harmful strain. The change will make a good many valuable medical books look rather antiquated—a matter of some importance to book publishers as well as the owners of medical libraries. Even Fahrenheit's clinical thermometer may be affected by the change, a matter upon which editors of medical journals may congratulate themselves, as they will not feel called upon to translate fever temperatures from Centigrade into Fahrenheit. Even our measuring tapes may require metric reformation.

Is Anti-tetanic Serum Useful in the Therapy of Lockjaw?—

While very little confidence is placed in the therapeutic value of anti-tetanic serum in treating a developed case of lockjaw, one of its principal advocates, Dr. Bazy, of Paris, has faith in its preventive virtues, if this serum is used at the proper time and in a

suitable manner. He states that since 1896, he has advised the use of preventive injections of anti-tetanic serum in all cases of suspicious, accidental wounds or injuries. As physicians know, the microbe of tetanus, when introduced into a wound, acts only by the toxin which it secretes. Now, the effect of anti-tetanic serum is to place the cells of the affected organism in such a condition that they are enabled to resist the disastrous influence of this toxin. It is also known that the action of anti-tetanic serum is of a temporary character, as is also the action of anti-diphtheritic serum, or anti-pest serum. If, therefore, there should be in the region of the infected wound or injury a continued production of tetanic toxin, as soon as the action of the antitoxin is exhausted (which usually occurs in ten, twelve or, at furthest, in fifteen days) a fresh quantity of tetanic toxin, elaborated by the living spores of the tetanus microbe, impregnates the nerve cells, and the nerves being no longer immunized by antitoxin, lockjaw develops. Such conditions are exemplified in an infected wound. The leucocytes, whose office it is to destroy common pathogenic germs, leave the living spores of the tetanus microbe at liberty to germinate and produce their toxin, which remains inactive as long as the organism is protected by anti-tetanic serum, but becomes hurtful as soon as its preservative action has disappeared. Hence Dr. Bazy thinks that the injection of anti-tetanic serum, in the case of a suspicious infected wound, should be renewed every tenth day at the latest. If lockjaw should supervene in a patient, the bearer of an infected wound, who has received but one injection of anti-tetanic serum, he does not think that such a result should be taken as a failure of anti-tetanic serum to prevent lockjaw.

Poisoning by Corrosive Sublimate.—A report showing the effects of poisonous doses of corrosive sublimate in producing lesions of the viscera, was presented by Drs. Spillman and Blum at a meeting of the Nancy Medical Society (December 9th, 1903). A woman, 30 years of age, drank a liquid containing three grams of corrosive sublimate. She was treated immediately by the administration of an emetic, and the employment of gastric lavage. For forty-eight hours no bad symptoms were noted. Then a fetid diarrhea, with bloody stools, appeared suddenly, with salivation and tender gums. The tongue and face

became edematous, the edema increasing by little and little, and, after a period of quiescence, lasting for thirty-six hours, fatal convulsions occurred. At the necropsy, among other lesions, gangrene of the internal surfaces of the cheeks, the gums and the rectum, with ulcerations of the gullet, edema of the stomach, vegetations of the mitral valve, and softening of the right occipital lobe, were found. The kidneys, enormously enlarged and white in color, showed the signs of acute parenchymatous nephritis. During life, however, the urine did not contain a trace of albumen; but in considering this paradoxical fact, the profuse diarrhea ought to be remembered, as the absence of albumen in the urine may have depended on the intensity of that symptom. The lesions of the kidney caused renal insufficiency, with oliguria and convulsive seizures. The rather tardy appearance of the fatal symptoms (another abnormal fact) and the long duration of the patient's survival, made the reporters incline to the opinion that they had to deal with a case of subacute poisoning, because the emetic and the prompt lavage of the stomach permitted only partial absorption of the drug, although the dose swallowed was very large.

To Prevent the Entrance of Insane, Idiotic, Imbecile or Epileptic Immigrants into Canada.—In a paper, entitled "The Treatment of the Criminal Insane," by C. K. Clarke, M.D., Superintendent of the Rockwood Asylum for the Insane, Kingston, published in this journal last January, the author says: "A far more rigid system of inspection than that in use at present should be adopted—that would exclude the palpably insane and defective; but, in addition to this, the indigent class of immigrants, who show marked evidence of mental defects or disease or criminal tendency should be returned to their own country at any time during a residence of two or three years. This is not an unreasonable proposition, and Federal and Provincial authorities should unite in vigorous action to control the situation as completely as possible." It is to be hoped that Dr. Clarke's recommendations, the outcome of a ripe experience of criminal defectives, may not prove fruitless. If inspection by competent examiners were practised at the chief Canadian seaports, the entrance of many imbecile insane and mentally defective persons would be stopped at the start. If individuals belonging to these

classes are to be returned to their own country, the work of exclusion should be exercised without allowing them to become domiciled among us. We notice in the daily press that a special examiner has been appointed by New York State to prevent the landing of insane, idiotic, imbecile or epileptic immigrants. These defectives have been freely shipped to America by European countries, and they are becoming a serious burden in many American cities.

Syphilitic Chancre of the Inferior Turbinated Bone in a Lad of Seven.—A case of this kind was reported by Dr. Brunon in *Loire Medicale* (December 15th, 1903). The little patient had secondary symptoms when seen by the physician, but though carefully examined, the initial lesion could not be discovered. After some days, an enlarged lymphatic gland of the size of a filbert was noticed on the left side of the hyoid bone, and as the glands of this region are tributary to the pituitary mucous membrane, Dr. Brunon examined the interior of the patient's nose. On elevating the inferior turbinated bone which was resting on the septum, he found a small, intensely red ulcer with punched-out borders, about half a centimetre in size. It was a chancre, and was the channel through which infection had entered. The parents and members of the household were free from chancre. The child was in the habit of scratching himself, and of picking his nose. Besides, he used "to play elephant" by stuffing into his nostrils all sorts of things, such as penholders, pencils, bits of wood, etc. Several hypodermic injections of calomel were used, and the patient ultimately recovered. The practical conclusion is that, when unable to find the route by which syphilis has entered a patient's body, the practitioner should examine the patient's nose with a speculum. This precaution will be all the more necessary if enlarged lymphatic glands in the submaxillary and hyoid regions indicate the probable site of the initial lesion.

The Toxin Treatment of Cancer.—Any treatment of cancer which shows a number of successful results, deserves the very serious consideration of the medical profession. Dr. Doyen, of Paris, isolates from cancerous neoplasms a microbe which is ever identical in its characteristics, and to which he has given the title of "micrococcus neoformans." Cultures of this microbe,

attenuated by different procedures, produce toxins, which Dr. Doyen employs in the therapy of cancers. He has treated 128 cases, with the following results: 58, no results; 47, improved, and still under observation; 21, cured. The cured cases comprise lymphadenomata, sarcomata, epitheliomata, ulcerated tumors, which had become generally diffused or had relapsed after being operated on, etc. Dr. Doyen's statement is certainly very interesting, but before his claim to have discovered a cure for cancer can be accepted, the medical profession must have good opportunities of forming an independent judgment on the facts, and his results must be confirmed by other surgeons.

J. J. C.

Dr. Lesperance's Paper, "Soluble Ferments of Cow's Milk."

—We feel that this paper, as reprinted from a recent issue of the *Medical Record*, New York, will interest our readers. Dr. Lesperance till recently practised medicine in Montreal, and devoted himself to pulmonary diseases. At present he is giving his entire time to research work in the matter of foods, and is consulting expert and chemist to the Lactoglobulin Co., of Montreal. The doctor had a special training in this line of work under the famous Gauthier, of Paris.

PERSONALS.

THERE are 249 women doctors in Great Britain.

CONGRATULATIONS to Dr. D. C. Meyers, of Deer Park, on the birth of a son and heir, a few weeks ago.

DR. DINNICK, a Canadian graduate, has just been appointed one of the house surgeons at the Manhattan State Hospital.

DR. DUNCAN ANDERSON, of Wellesley Street, left town, April 11th, to take a special course in surgery in Philadelphia and New York.

DR. BREFNEY O'REILLY, son of Dr. Chas. O'Reilly, of Toronto General Hospital, has passed the necessary examination for the degree L.R.C.P. and M.R.C.S. (England).

MR. A. P. WATTS, who up to a few weeks ago had charge of the medical book department of Chandler & Massey Limited, has been appointed sole Canadian agent for the well-known firm of medical publishers, Wm. Wood & Co., New York.

DR. FOTHERINGHAM is convalescing nicely after his recent illness, and wishes to thank the many friends who were so kind

in their inquiries and attention. He expects to resume his practice early in July, after his return from a trip to the Continent and Britain.

DR. CLARENCE L. STARR and DR. ALLEN BAINES have purchased fifty feet each of the property until recently held by ex-Mayor Shaw, on the north side of Bloor St. West, opposite McMaster College. Both gentlemen will build at once, and expect to move into their new residences this fall.

THE announcement was made on April 12th that Dr. L. D. L. Harwood has been appointed professor of gynecology in Laval University and also chief of the gynecological department of Notre Dame Hospital, in each case as successor to the late Dr. Brennan. In addition to these honors, Dr. Harwood has been chosen president of the section in gynecology of the Medical Congress of French-speaking Physicians of North America, which is to meet here this year.

THE medical book department of Chandler & Massey Limited, 235 Yonge Street, is now under the management of Mr. A. McFadyen. This gentleman has had sixteen years' experience in medical books, having been, for nearly that length of time, with J. A. Carveth & Co., of this city. Mr. McFadyen is well known and highly thought of by the profession, not only in Toronto, but all over Canada, and what he does not know of current medical literature—well, it is hardly worth bothering about. We think that Messrs Chandler & Massey made a wise choice in appointing Mr. McFadyen, and feel that he will do a good deal towards furthering the interests of the book department of their firm.

Kingston Nurses Graduate.—On the afternoon of April 6th the Nurses' Residence in connection with the General Hospital, at Kingston, was formally opened. It was erected by the citizens, on whose behalf Prof. Marshall handed over the fine stone building to the chairman of the Board of Governors, Mr. Donald M. McIntyre. The dedicatory service then followed, Rev. Dr. Mackie, of St. Andrew's Church, officiating. Afterwards, the nurses' graduating ceremonies took place, the graduates being addressed by Bishop Mills. Twelve nurses received their diplomas, viz.: Miss Florence Bouck, Morrisburg; Miss Jennie Birmingham, Gananoque; Miss Etta Montgomery, Peterboro'; Miss Lizabell Howell, Millbrook; Miss Minnie Pixley, Kingston; Miss Carrie Edmison, Peterboro'; Miss Grace Nourse, Sherbrooke, Que.; Miss Edythe Davidson, Rochester, N.Y.; Miss Bertha Houston, Belleville; Miss Beatrice Armstrong, Trenton; Miss Birdie Smith, Hamilton, and Miss Belle Morrison, Toronto.

Correspondence.

The Editor cannot hold himself responsible for any views expressed in this Department.

THE ST. LOUIS CONGRESS ON TUBERCULOSIS.

Open Letter to Mr. Clark Bell, for the American General Public and the Medical Profession.

MY DEAR SIR,—I am extremely distressed to learn from your letter that great dissension has occurred between the Medico-Legal Society, which has organized the Congress, and a great number of the medical profession. As a foreigner, I cannot know the reason, or the reasons, of the discontent of your medical profession. I cannot believe that the circumstance that the Congress was summoned by a Society which is not exclusively a medical one, is the main reason of this discontent. No person doubts that misery is the principal source of tuberculosis, and as it is an historical truth that prevention is better than cure, and as we may be sure that this truth is also prophetic, we must say that prevention of misery is the most efficacious help for tuberculosis. Prevention of social misery is surely not a special task for physicians.

To abolish misery we should raise the conditions of family homes of the poor, to make cleanliness possible and to accustom the poor to it. We ought to protect them from the use of infected bedding and body-linen. We should save the wretched from the injuries of cold and heat, from starvation, from prostitution through misery, from alcoholism through despair, etc.

For these duties we need the collaboration of philanthropists, of the representatives of communities, countries and states. We need money and laws for that purpose. We need a law to be able to separate an infectious phthisic from his family even against his own will. But we are then obliged to compensate the family for the loss of his earnings, if through such loss his relatives are in danger of perishing of misery.

The medical profession could not supply these duties from their own economical means.

I hope to prove at the Congress that the protection of tuberculous individuals, and principally in light cases, must be quite another than that of phthisics, and that we need for the protection of the first class a widely organized patronage. It is principally for phthisics that we need special and hospital-like sanatoria.

toriums. The idea of these institutions is a merit of the medical profession; the execution of this idea is a matter for society, which should before all resolve the economic problem. One needs for this institution not only the collaboration of physicians, but also that of architects, of technical men and of administrative talent. Good and wholesome water becomes then a fundamental exigence; to supply it we need the collaboration of geologists and of technical men.

In reference to all these indispensable collaborations, the model British Congress on Tuberculosis was summoned not only by doctors, but also by "laymen," and these were invited not only by medical authorities, but also representatives of the Government, the Mayors of the cities, members of Parliament, philanthropists, etc. And they were present, and this presence is necessary; it makes them zealous partizans by means of immediate impression. But not only this Congress was not specially professional. The Congresses on Criminal Anthropology unite the heads of juridical and biological science, pedagogues, administrative authorities and philanthropists, the same elements you find at the Congresses of patronage.

Can you imagine a Psychological Congress without biologists, or would a Congress on Statistics be possible without the collaboration of physicians, judges and administrators?

We think that the high scientific schools must represent the *Universitas Scientiarum*; the more before all the Congress on Tuberculosis must represent the *Universitas Societatis Humanae*.

But I feel myself impelled from the interior of my intellect, but in no way from the interior of my heart, to reproach you for having elected me as Honorary President, and for having given me an isolated high place which does not correspond to my scientific position in the question of tuberculosis. I am, to a certain degree, an outsider in this question, and it may be that I should never have written a word about this matter. I had not been invited to collaborate for the British Congress. I took that as consultation of my British colleagues, and I communicated to them then my personal experiences and my own ideas on the matter.

There are many scientific men who have made eminent researches and experiences about tuberculosis, and with them I cannot compare myself in merit. I place my dignity as Honorary President at your disposal, while remaining profoundly touched by your kindness. I shall come to the Congress also as a simple member before all, because I think I may have to tell you one or another thing which might not be told by any one else. I shall come not only on account of the interest I take in the Congress, but also for other reasons.

Since my youth I have had the desire to see the United States with my own eyes, and, above all, to become acquainted with its

citizens, its learned men, its medical profession, and its institutions. My interest in the American medical profession was awakened many years ago by your dentists. I said to myself, behind those teeth there are good heads. As my knowledge of American authors increased, I was confirmed in my conviction that it is so.

In general, I am of opinion that from the United States will come a complete renaissance of modern social life. You have profited by all the traditions of European nations, and you do not suffer from the drawbacks of these traditions which weigh so heavily on European evolution. In your whole life, and therefore in your institutions, individual intellect and energy of will have ample scope for plenty of evolution. The multitude of representative parliaments afford opportunity for all sorts of social improvements and of legal reforms without being hampered by the fatal social organizations of different classes as on the old Continent.

The rich evolution of individualism has created in America a highly interesting species of gentlemen. In Europe every progress is an outcome of the "Schools." You have an original species of men, whom I should name the problemists. In technical questions they form a "profession of inventors," also in science it may happen that a gentleman is stroked by a problem. They may be not enough prepared scientifically. Then they appropriate to themselves as self-made men the necessary knowledge and the necessary dexterity for the solution of the problem.

I hope to be able to shake hands with one or the other of them, and I say to you, my dear sir, "Au revoir a St. Louis."

Yours faithfully,

PROFESSOR M. BENEDIKT.

Vienna, March, 1904.

Thyro-iodine in Goitre.—The interesting discoveries made in recent years as to the curative properties of iodine in respect to such diseases as goitre and dropsy, were the subject of a paper read at the Canadian Institute on April 9th by Prof. Macallum, of the University of Toronto. In cases of goitre, he said, the presence of iodine has been discovered in the thyroid gland, and a compound isolated from the gland, and known as thyro-iodine, has been found to possess extraordinary remedial powers, preventing the progress of dropsical tendencies, and the clogging of the tissues associated therewith in such diseases as goitre and myxœdema. The Professor said that a vegetable diet, owing to the greater proportion of iodine which it contains, is more favorable to the development of goitre than a mixed diet. Chalky soils also favor the disease.

❧ News of the Month. ❧

AN IMPORTANT JUDGMENT IN FAVOR OF FAIRCHILD BROS. & FOSTER, NEW YORK.

THE following is an important judgment rendered by the Supreme Court State of New York on March 24th last, in favor of Fairchild Brothers & Foster, New York, in their action against Morris Dlugasch and Herman Finkelstein, doing business under the firm name of the Broadway Drug Co., New York:

"The summons in this action, dated the 20th day of October, 1903, and the complaint herein, verified the 20th day of October, 1903, having been duly served on the defendants on the 21st day of October, 1903, together with an order to show cause, containing a preliminary injunction against the defendants and each of them, dated the 21st day of October, 1903, and an undertaking having been filed by the plaintiff herein and duly approved by the Court, and an order of injunction *pendente lite* having been granted and entered herein on the 30th day of November, 1903; and the defendants having answered by their answer verified the 9th day of November, 1903, and having on the 23rd day of March, 1904, offered in writing to allow judgment to be taken against them to the effect that 'the said defendants and each of them, and their servants, agents and employees, and all persons acting in their behalf, be prohibited, restrained and enjoined perpetually from selling, dispensing, advertising or displaying at the drug store of said defendants at No. 177 Broadway, Borough of Manhattan, City of New York, or elsewhere, any chemical or pharmaceutical preparations of any sort or kind whatsoever bearing signs, labels or wrappers marked "Fairchild" or "Dr. Fairchild," or any similar word or words, or purporting to be made by "Dr. Fairchild" or "Fairchild," which said preparations are not manufactured by plaintiff;' and the plaintiff, on the 23rd day of March, 1904, the same being within ten (10) days after service of said offer of judgment having accepted said offer, as appears by the affidavit of Arthur F. Gotthold, duly verified the 23rd day of March, 1904, and hereto annexed; and the parties herein having adjusted the money damages and costs as prayed for in the complaint;

"Now, on motion of Gould & Wilkie, attorneys for the plaintiff herein, it is

"Adjudged that the defendants and each of them and their servants, agents and employees, and all persons acting in their behalf, be and they hereby are prohibited, restrained and enjoined perpetually from selling, dispensing, advertising or displaying at the drug store of said defendants at No. 177 Broadway, Borough of Manhattan, City of New York, or elsewhere, any chemical or pharmaceutical preparations of any sort or kind whatsoever bearing signs, labels or wrappers marked 'Fairchild' or 'Dr. Fairchild,' or any similar word or words, or purporting to be made by 'Dr. Fairchild' or 'Fairchild,' which said preparations are not manufactured by plaintiff."

DR. WILLIAM PEPPER.

A LIFE of the late Dr. William Pepper, of Philadelphia, has recently been published, which provides an object-lesson to medical men and to men of ideas generally. Mr. Thorpe's life of Dr. Pepper cannot but intensify the feeling of admiration universally felt by Americans and also by Englishmen for that great man. Dr. Pepper's sole aim in life was the advance of education. To this end he labored incessantly, and although in his later years afflicted with an incurable and most painful malady, he still endeavored to carry out his views. He was Provost of the University of Pennsylvania, and the writer of many important medical works, and conducting an extensive practice, but at the same time he pursued his plans for the advancement of his fellow-man.

Mr. Thorpe tells of the work Dr. Pepper had done by the time he had reached fifty:

"Institutions founded, the University Hospital, the Commercial Museums, and the Philadelphia Free Library; institutions reorganized and re-treated, the University of Pennsylvania; public reforms, the improvement of the city's water supply and an entire change in the attitude of the public mind toward education and the ideals of life. To carry out these plans Dr. Pepper raised over \$10,000,000 and secured about 100 acres of land from the municipality, lying near the heart of Philadelphia. To the execution of this task he gave the service of one of the most acute and, at the same time, the most practical minds ever vouchsafed to man. To this service of his genius he added the personal gift of \$500,000, which he earned in the practice of an exacting profession. It may be doubted whether any other American has run a like career.

When the fact is borne in mind that Dr. Pepper died at the age of fifty-three, it seems almost incredible that he should have crowded into so short a life the amount of solid endurable work

that he did. He undertook no project which he did not carry to a successful issue, and as Mr. Thorpe says, "His love of work and ceaseless activity were a disease incurable, but encouraged by more activity." He had a very large practice, but "his gratuitous practice was equal to the entire practice of many a well-established physician, and on no occasion was he known to refuse his aid because the patient was poor."

The noble deeds of William Pepper add lustre to the whole profession of medicine in America, for, like Virchow, he was not only foremost in medicine but was also a most admirable citizen and public-spirited man. His works are his monument, more enduring than brass, and the history of his life will call attention to the good that he has wrought, and act as an incentive to others.—*Med. Record.*

SENATOR DR. J. H. WILSON.

THE medical profession of the County of Elgin did honor to one of their number whose services have been recently recognized by the Government of Canada when they entertained Hon. J. H. Wilson to a banquet at St. Thomas, on April 8th. There was a large attendance of the physicians of the city and county. Dr. Cascadden, of Dutton, occupied the chair, and in his speech proposing the health of the guest of the evening, said that Dr. Wilson came of a fighting stock. Dr. Wilson, however, had passed that stage and had passed into the serene and quieter atmosphere of the Senate. In tendering him this honor, the greatest that could be conferred, the Government acted wisely. His long experience in public life had made Senator Wilson intimately acquainted with the country. He would, he said, not be surprised if Senator Wilson received further honors, and hoped to see him appointed Minister of Health and Sanitation. He had known the Senator for forty years, and they always had the most harmonious relations, personally and professionally.

Senator Wilson, in replying, said he could not find words to express his feelings. It was a question with him whether the position was an elevation to him or not, as he felt no greater honor than working side by side with his medical brothers. There were no harder workers, or men who made themselves less conspicuous, than the medical profession. He could look back for thirty-three years, when he fought the battles of the profession in the Local Legislature and assisted in carrying a bill for the higher standing of the profession, and all were benefited thereby. After referring at some length to matters pertaining to the profession, the Senator said he asked for forgiveness if he had ever thoughtlessly injured anyone's feelings. If he had, it was unintentionally, and

he was very sorry and ready to withdraw the remark. Remaining in the ranks of the medical profession was a greater honor than being a Senator. Had he stuck to the ranks and kept out of politics, he would have been worth thousands of dollars, but he had no regrets for the course he had pursued.

Among other speakers, all of whom eulogized the new Senator, both as a public man and a physician, were Dr. Kains, Dr. Luton, Dr. Guest, Dr. Sinclair and Dr. Marlatt.

The JOURNAL extends heartiest congratulations to Dr. J. H. Wilson upon this deserved recognition of one of the profession.

LARGER GOVERNMENT GRANT FOR HOSPITALS.

A LARGE deputation representing the hospitals of Ontario asked Premier Ross, on April 6th, for a more generous treatment of these institutions.

The Government grant at present is \$110,000, which amounts to about 16 1-2 cents a head a day. They asked, first, that this grant be increased to \$130,000, which would amount to about 20 cents on each inmate per day.

The present regulations further state that the Government grant shall not be awarded in any case where more than \$3 a week is received from any other source. Under this regulation the municipal grant of 40 cents a day, or \$2.80 a week, which is given for charity patients, is the limit of the municipal grant. The deputation asked that the limit of \$3 a week be increased to \$3.50 a week.

They claimed that the actual cost of feeding and nursing a patient is \$5.60 a week at the lowest. If they received 20 cents a day from the Government and were permitted to receive 50 cents a day from the municipality, it would amount to \$4.90 a week, and that would give them a smaller margin of loss.

The Premier said he would have to confer with the Provincial Secretary on the matter, but he intimated that there should not be much difficulty in raising the \$3 a week limit.

On the deputation were Dr. O'Reilly, General Hospital; Dr. Ferguson, Western; Mr. Roper and Mr. Gurney, Grace; Dr. McLaughlin, Owen Sound; Dr. McLeod, Barrie; Adam Beek, London; John Billings, Hamilton; Dr. Rutherford, Hamilton; Denis Murphy, Ottawa; Dr. Sullivan, St. Michael's; Dr. Wainwright, St. Michael's; Dr. Robertson, Ottawa, and others.

ITEMS OF INTEREST.

For Pure Food.—Both an American and a Canadian firm that were selling canned tomatoes, colored with anilin, in Montreal, are being prosecuted for fraud.

Six New Professors for Manitoba University.—The Council of Manitoba University has decided to engage six new professors in botany, physics, chemistry, mathematics, physiology, and bacteriology. The assets of the University are worth a quarter of a million.

Improved Street Bins.—Galvanized wire baskets were fixed recently to all the street orderly bins in Queen Victoria Street, London, Eng., with an enamelled plate above them requesting that orange peel, banana skins, bits of waste paper, etc., should be placed therein instead of being thrown in the streets.

New Wing for Galt Hospital.—The Galt Hospital Board decided recently to ask the Town Council for a loan of ten thousand dollars to build another wing to the hospital, another story to the nurses' cottage, and a new operating room, equipped with all modern appliances and facilities. They agree to pay four per cent. per annum on this sum for twenty years.

Military Medical Supplies.—The medical branch of the militia department has purchased a large supply of material and equipment that will add materially to the efficiency of this service. The purchases include eighteen ambulance wagons of a new type, designed by Lieutenant-Colonel Fiset, Director-General of the Canadian Army Medical Service, each wagon having room in it for four patients lying down, or thirteen sitting up.—*Jour. Am. Med. Assn.*

Doctors' Incomes.—The *Canada Lancet* is authority for the statement that the average income of the doctors in Ontario does not fall below \$2,000 a year. This would give a total of \$7,000,000 for the 3,500 doctors of Ontario. On an average it may also be assumed that doctors give at least 10 per cent. of their time to charity work. This would represent about \$700,000 as the contribution of the doctors of Ontario towards the general public good.—*News.*

A Model Student.—The Queen's medical convocation took place on April 8th, Sir Sandford Fleming presiding. A feature of the proceedings was the presentation of a prize to E. W. DeLong, of Gananoque, by Dean Connell, who has decided to follow out a scheme inaugurated three years ago by the late Principal Grant. The prize is for the student whose morals stand highest. The graduates were asked to cast a ballot for the purpose of choos-

ing the one among their number who they conscientiously thought would do the right thing at all times.

Dr. H. C. Featherston.—The death occurred on April 8th at the residence of his father, Mr. A. M. Featherston, of Dr. Herbert C. Featherston, at the early age of twenty-five years and three months. Dr. Featherston graduated from McGill University in 1902; he subsequently went to Edinburgh, where he took the three degrees of the Royal College of Surgeons. In November last he returned home in a somewhat feeble state of health from overwork, and suffering from a bronchial trouble, pleuropneumonia subsequently supervening.

Provincial Board of Health.—The second quarterly meeting of the Provincial Board of Health will take place on May 4th and 5th at the office of the secretary, Dr. Hodgetts. Among other business, important reports will be presented by the Committee on Epidemics and the Committee on School Hygiene. The third quarterly meeting of the P.B.H. will be held at Sarnia, Ont., in July. It is proposed to investigate the condition of the water supply of that town, which has been thought to have caused several cases of typhoid fever.

Medical Men Abroad.—Drs. J. Alex. Hutchinson and George E. Armstrong, of Montreal; Murray McLaren, of St. John, N.B.; Dr. Ohmsted, of Hamilton, Ont., and W. G. Anglin, of Kingston, sailed from Boston for Naples, April 9th, and will journey through Italy, visiting the leading hospitals, and finally going to Vienna. Dr. Anglin has just recovered from a very severe attack of septicemia. Dr. B. L. Riordan, of Toronto, went to Boston to see the party off, afterwards spending some days round the city with Dr. Burrell, looking through the Massachusetts General Hospital, the new relief station, and other interesting sights.

Royal Visit to Finsen Ray Institute.—King Edward and Queen Alexandra on April 9th visited the Finsen Ray Institute, where there is a large number of patients who presented Her Majesty with a magnificent bouquet. Their Majesties conversed with the patients lengthily. The King ordered Sir Francis Laking, the physician-in-ordinary to His Majesty, to study the improvements made in order to apply them to the Ray Institute in London. Afterwards their Majesties visited Prof. Finsen, who has been ill for some time past. The professor, as our readers know, is the inventor of the Finsen Ray system for the cure of lupus.

The Protozoa in Disease.—The *Century Magazine* for April contains two articles that are in different ways of medical interest. In the first Prof. Gary N. Calkins, of Columbia University, furnishes a very readable account of the protozoa in disease and

gives in an intelligible manner the general facts in regard to the development of these disease-producers with which we are specially concerned. The article is illustrated by original drawings from the author's own pen and may be considered as authoritative, though appearing in a popular magazine. He assumes perhaps a little too much in admitting—as it appears to us that he does—that the protozoan origin of scarlet and yellow fevers has been discovered, but that does not detract from the general value of his article. Furnishing as it does in a brief but very comprehensible way the main biologic facts in regard to pathologic sporozoa which are probably not known to the great majority of physicians, the article is well worth reading by medical men.

Weir Mitchell on George Washington.—The other contribution in the *Century*, referred to above, is by Dr. Mitchell, whose literary achievements have widened his reputation so well earned by his work in medicine. It is in a measure a sort of historical novel, as it is in the form of an assumed biography of George Washington. We do not see that Dr. Mitchell has attempted to cultivate or imitate Washington's style as we know it from his state papers and addresses. We doubt whether Washington could have expressed himself anywhere nearly as well as Dr. Mitchell does it for him. Still he might have very naturally thought out the same thoughts and the paper shows a very close study of the early and family history of the father of his country. Medical men will find of interest this latest contribution of a colleague who has reflected honor on the profession in more ways than one.—*Jour. of the American Med. Assn.*

Ontario Medical Association.—The twenty-fourth annual meeting of the Ontario Medical Association will be held in Toronto, in the new Medical Buildings, Queen's Park, on the 14th, 15th and 16th of next month. Any member desiring to read a paper should forward the title to the secretary by the 15th of the current month. It is desired that all papers be in the hands of the Committee by May 31st. The usual fifteen minutes are allowed for the reading of a paper. If too long to be read in this time an abstract may be presented. Dr. A. A. Macdonald is Chairman Committee on Papers and Business. Dr. Charles P. Lusk is General Secretary, his address being 99 Bloor St. West, Toronto. The Minister of Militia, Sir Frederick Borden, his parliamentary duties permitting, will be one of the guests of honor. The present outlook for this year's meeting is most encouraging.

University of Toronto Post-Graduate Course.—It is the intention of the Faculty of Medicine of Toronto University to conduct a Post-Graduate Course extending over the two weeks

immediately preceding the Meeting of the Ontario Medical Association. The programme from day to day will be as follows:

9 a.m. to 11 a.m.—Operations and Surgical Clinics in the various Hospitals.

11 a.m. to 1 p.m.—Clinical Laboratory methods and practice in the Laboratories of the University of Toronto.

2 p.m. to 4 p.m.—Medical Clinics in the various Hospitals.

A fee of \$10.00 will be charged for the Clinical Laboratory work. The details of the time-table will be distributed at the Secretary's office in the University on the first day of the course. It is requested that members of the profession who wish to take this course should notify the Secretary, Dr. A. Primrose, before coming to Toronto. The course will begin on Wednesday, June 1st, and will terminate on June 15th.

Text of an Anti-Spitting By-law.—A by-law to prevent spitting on sidewalks and in public buildings and street cars was passed April 11th, 1904, by the Council of the Corporation of the City of Toronto, as follows: "No person shall spit upon any public sidewalk which is upon a highway, or in any passageway, stairway or entrance to any building used by the public, or in any room, hall or building to which the public resort, or in any street car or other public conveyance, except into a proper receptacle. Any person convicted of a breach of any of the provisions of this By-law shall forfeit and pay, at the discretion of the convicting Magistrate, a penalty not exceeding (exclusive of costs) the sum of one dollar for each offence, and in default of payment of the said penalty and costs forthwith, the said penalty and costs, or costs only, may be levied by distress and sale of the goods and chattels of the offender, and in case of there being no distress found out of which such penalty can be levied, the convicting Magistrate may commit the offender to the Common Gaol of the City of Toronto, with or without hard labor, for any period not exceeding three days, unless the said penalty and costs (if any), including the costs of the said distress and of the committal and conveyance of the offender to the said gaol, are sooner paid. This By-law shall come in force on and after the first day of June, 1904.

The Physician's Library.

BOOK REVIEWS.

The Medical Annual. A Year-Book of Treatment and Practitioners' Index. Contributors—Bertram L. Abrams, B.Sc., M.D.; Herbert W. Allingham, F.R.C.S.; James Cantlie, A.M. M.D.; Prof. A. H. Carter, M.D.; Frank J. Charteris, M.B.; E. Henry Fenwick, F.R.C.S.; A. E. Giles, B.Sc.; Edward W. Goodall, M.D.; Wilfrid Jas. Hadley, M.D.; Robt. Hutchison, M.D.; Theo. N. Kelynaek, M.D.; Harry Lambert Lack, M.D.; Priestley Leech, M.D.; Jas. Kerr Love, M.D.; John McIntyre, M.B.; Keith Montsarrat, F.R.C.S.; William Murrell, M.D.; Jos. Priestley, B.A., M.D.; R. J. Probyn Williams, M.D.; Walther E. Rathe, M.D.; Boardman Reed, M.D.; Prof. A. W. Mayo Robson; Prof. Robt. Saundby; Jas. Shaw, M.D.; Purves Stewart, M.A., M.D.; Geo. Fred Still, M.A., M.D.; Prof. Ralph Stockman, M.D.; A. Hugh Thompson, M.A., M.D.; Wm. Thorburn, F.R.C.S.; Jos. G. Turner, F.R.C.S.; J. W. Thomson Walker, F.R.C.S.; Norman Walker, M.D. 1904. Twenty-second year. Bristol: John Wright & Co., Stonebridge. London: Simpkin, Marshall, Hamilton, Kent & Co., Ltd. Edinburgh: Young J. Pentland. Glasgow: A. Stenhouse. New York: E. B. Treat & Co. Calcutta: Thacker, Spink & Co. Paris: Boyveau & Chevillet. Melbourne, Sydney, Adelaide and Brisbane: J. Robertson & Co. Sydney: Angus & Robertson. Toronto: J. A. Carveth & Co.

The twenty-second consecutive copy of "The Medical Annual" has just been issued, and, though we regret that it cannot be got out by the 1st of March each year, in place of nearly the 1st of May, yet the 1904 volume undoubtedly exceeds in value any so far published. The Annual is larger, the print is better, and the departure of introducing this year stereoscopic views, makes the volume such that, if for any reason the publishers ceased publication, it would be seriously missed from medical literature. "The Medical Annual" is looked upon by the profession as being a digest of medical literature for the year just ended, and that of 1903 is so extensive as to again necessitate the entire re-writing of the book. Purchasers of the Annual from year to year need not have any fear that they are purchasing anything but the most recent

and up-to-date material in medicine and surgery, all the authors having been most careful in the selection of their matter. The colored plates illustrating small-pox and the infectious diseases are capital, and, what is more important, the book is kept small in its dimensions, and therefore handy for the reader.

- * *A System of Physiologic Therapeutics.* A Practical Exposition of the Methods, other than Drug-giving, useful for the Prevention of Disease, and in the Treatment of the Sick. Edited by SOLOMON SOLIS COHEN, A.M., M.D., Sen. Asst. Professor of Clinical Medicine in Jefferson Medical College; Physician to the Jefferson Medical College Hospital, and to the Philadelphia, Jewish, and Rush Hospitals, etc. Vol. VII., Mechanotherapy and Physical Education, including Massage and Exercise, by John K. Mitchell, M.D., Fellow of the College of Physicians of Philadelphia; Physician to the Philadelphia Orthopedic Hospital and Infirmary for Nervous Diseases; Assistant Neurologist to the Presbyterian Hospital of Philadelphia, etc.; and Physical Education by Muscular Exercise, by Luther Halsey Gulick, M.D., Director of Physical Training in the Public Schools of Greater New York; President of the American Physical Education Association; Chairman, Physical Training Committee, Louisiana Purchase Exposition; Chairman of National Basket-ball Committee, etc. With special chapters on Orthopedic Apparatus by Jas. K. Young, M.D., Professor of Orthopedic Surgery in the Philadelphia Polyclinic, etc.; on Corrective Manipulations in Orthopedic Surgery (including the Lorenz method), by H. Augustus Wilson, M.D.; and on Physical Methods in Ophthalmic Therapeutics, by Walter L. Pyle, M.D. 229 illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1904. Canadian agents: Chandler & Massey Limited, Toronto, Montreal and Winnipeg.

Not to the orthopedic specialist alone, but to the general surgeon, will Vol. VII. of "Physiologic Therapeutics" prove very interesting. But a glance at the extensive title-page will show the ground covered by Dr. Cohen's volume. The book contains well over 200 illustrations in half-tone, and all of them are good. A study of those which appear in many chapters of the work are most instructive, more especially those showing the series of movements for the relief of the different forms of special curvature. It is not essential that the treatment of the latter condition should lie solely with the orthopedist, the only trouble being that few practitioners have the facilities for having administered to their young patients the course of gymnastics which now form so essential a part in the treatment of the different forms of curvature of

the spine. Dr. John K. Mitchell's section of this work is a most valuable contribution to surgery, the 200 pages being well worthy of the careful perusal of all who desire to read a thoroughly practical treatise on the proper uses of massage and exercise in treatment of disease. The section by Dr. L. H. Gulick on "Physical Education by Muscular Exercise" has a great deal in it of value, and will prove of interest to all who take an interest in athletics and desire to know how best to devote their spare hours in order to gain most physical benefit therefrom.

W. A. Y.

Von Bergmann's Surgery. A System of Practical Surgery. By Drs. E. VON BERGMANN, of Berlin; P. VON BRUNS, of Tübingen; and J. VON MIKULICZ, of Breslau. Edited by William T. Bull, M.D., Professor of Surgery in the College of Physicians and Surgeons (Columbia University), New York. To be complete in five imperial octavo volumes, containing over 4,000 pages, 1,600 engravings and 110 full-page plates in colors and monochrome. Sold by subscription only. Per volume, cloth, \$6.00; leather, \$7.00; half morocco, \$8.50 net. Volume I. just ready. 936 pages, 361 engravings, 18 plates. Philadelphia: Lea Bros. & Co.

This exceedingly comprehensive and valuable work by von Bergmann has found a sympathetic and able translator and chief editor in the person of Dr. William T. Bull, of New York. So general was the recognition of the importance of this work that it was at once translated into Spanish and Italian, and the first volumes were out of print before the later ones had passed through the press. The present translation is from the second edition, and is thoroughly up-to-date both in literature and good matter. The editors bring to their work not only a keen enthusiasm and industrious effort, but also a wide surgical experience which enables them to add judicious references to methods of practice which are preferred by the American and English surgeons.

In this first volume the surgical affections of the head are discussed with great exhaustiveness, and in a spirit of scientific fairness. Many of the chapters exceed the scope of the ordinary textbook upon the same subject, and even surpass in some instances the special treatises. The work is chiefly clinical in character, but pathological data also constitute a very important part of the work, together with details of original research and statistical facts, which render it certainly one of the most important surgical works of the day.

The first volume, which is now ready, covers the following subjects: Injuries and Diseases of the Skull and its Contents; Malformation; Injuries and Diseases of the Ear; of the Face, including Plastic Operations and the Neuralgias of the Head; of the

Salivary Glands, including Anomalies of the Jaw; of the Nose and its Adjacent Tissues; of the Mouth and of the Pharynx.

The other volumes of the System will follow in rapid succession.

B. E. M'K.

Précis D'Urologie Clinique. Par AUGUSTE LETIENNE et JULES MASSELIN. One volume in 8vo cavalier de 470 pages, avec 58 figures et une planche hors texte. Prix 12 francs. Paris: C. Naud, Editeur, 3 rue Racine.

The general divisions of this work are as follows: First Part—Chapter 1, Urinary Apparatus; Chapter 2, Physical Characters of Normal Urine in the Adult; Chapter 3, Chemical Composition of Normal Urine; Chapter 4, Urological Relations; Chapter 5, Composition of Normal Urine in Children. Second Part—Pathological Urines: Chapter 1, General Considerations on the Pathological Variations of the Urinary Elements, What One Should Understand by Pathological Variations in Urine; Chapter 2, Urinary Albumens and Their Derivatives; Chapter 3, Urinary Sugars; Chapter 4, Acetonuria; Chapter 5, Urinary Pigments in Pathological Conditions; Chapter 6, Hematuria, Hemoglobinuria; Chapter 7, Pyuria; Chapter 8, Urinary Deposits, Calculi; Chapter 9, Principal Pathological Urinary Types. Third Part—Clinical Methods for Exploring the Kidney. Fourth Part—Microbes and Parasites of the Urine: (a) Urinary Microbes; (b) Worm-Parasites of the Urinary Apparatus.

The above general divisions of the work will give the reader an idea of its practical and scientific scope, and of its usefulness to the practitioner in interpreting a urinary analysis.

It is an abstract of clinical urology, and contains a lot of information taken from anatomy, physiology, histology, and pathology, which will be of great use to the student of urinary biology.

J. J. C.

Our Own and Other Worlds. By JOSEPH HAMILTON, Author of "The Starry Hosts," a prize book of the Science and Art Education Council of London, England. Introduction by Rev. W. H. Withrow, D.D., F.R.S.C. With illustrations. Toronto: William Briggs. 1903.

Anyone desirous of securing a book giving in digested form "the latest thought and discovery" on astronomy should purchase a copy of "Our Own and Other Worlds." It is written by one who has for a lifetime made a careful study of the subject, and is in a position to speak regarding the wonders of the heavens in a manner that will be found to be easily understood, and not a mass of technical and more or less incomprehensible terms. The subject is, of course, limitless, but the author wisely does not attempt to, nor could he, with the meagre space at his

command, go into great detail. He makes his book interesting and instructive.

W. A. Y.

The Sterilization of Urethral Instruments, and Their Use in Some Urinary Complaints. By HERBERT T. HERRING, M.B., B.S. (Durh.), M.R.C.S. (Eng.). London: H. K. Lewis, Publisher.

This is a book that should be carefully studied by every general practitioner, as well as by every surgeon, for there is no branch of surgery in which the ordinary rules of surgical cleanliness are more frequently violated than in that connected with urinary complaints.

Perhaps a practitioner has his instruments sterilized, and his hands carefully cleansed, and then proceeds to pass his instrument, without even washing the penis. Too often, even in hospital practice, have we seen the convalescence long delayed by an acute attack of cystitis, caused by some neglect in the technique that should surround the passing of a catheter.

A careful perusal of Herring's book will enable one to avoid completely the disasters caused by infection, that one has been called upon to remedy.

F. N. G. S.

Starvation Treatment of Certain Malignant Growths. By ROBERT H. M. DAWBARN, M.D. (The Samuel D. Gross Prize Essay.) Philadelphia: F. A. Davis Company, Publishers.

This is a most interesting study, and probably opens a new field for operations for malignant growths affecting the jaw, face, naso-pharynx, etc., that would otherwise seem inoperable, and this, too, with a fair modicum of success.

It is not the "ligation" treatment only, but the excision of the external carotids, and in this we believe it is unique and original.

The work covers a period of several years, and the table of results shows some cases remaining cured after an interval of eight years.

This should encourage surgeons to undertake many of these terrible cases, to which in the past we have been unable to hold out any hope.

F. N. G. S.

Aids to Surgery. By JOSEPH CUNNING, M.B., B.Sc., F.R.C.S., Medical Officer, Royal Free Hospital. London, England: Balliere, Tindall & Cox. 1904. Canadian agents: J. A. Carveth & Co., Limited, Toronto.

This compact little volume covers the surgical field very effectively. The arrangement is good, and the definitions are concise.

The clinical features of each disease are accurately described, and the treatment clearly presented.

It should be of great service to the physician when he has to call on the surgeon. He can have it in his pocket, and when he finds the surgeon "away out" in diagnosis or treatment, he can refer to the "Aids" and have his confrere put right. Students preparing for examinations will find it exceedingly helpful.

J. H.

Surgical Asepsis. By HENRY B. PALMER, M.D., Consulting Surgeon to the Central Maine General Hospital. Ninety illustrations. Philadelphia: F. A. Davis Company, Publishers.

The book evidently aims more especially to demonstrate that surgical work may safely be performed in the patient's home. The surgeon must be careful in his selection of cases suitable for home treatment, as well as his selection of the homes in which it may be carried on. When it seems necessary to operate in the home of the patient, we believe that if the surgeon uses a moderate amount of common-sense—with which every surgeon is supposed to be supplied—he will probably accomplish more in less time than if he adopts the theories of the author of this book.

S.

Dispensing Made Easy. With Numerous Formulæ, and Practical Hints to Secure Simplicity, Rapidity and Economy. By WM. G. SUTHERLAND, M.B. (Aberd.). Formerly House Surgeon, Queen's Jubilee Hospital, Earl's Court, London, S.W.; Civil Surgeon in Charge Orange River Military Hospital, Boer War, 1900, etc. Bristol: John Wright & Co. London: Simpkin, Marshall, Hamilton, Kent & Co., Limited. 1904.

This little brochure has been written with a view to facilitate the busy club practitioner in prescribing and dispensing his remedies in a quick and easy manner. It is peculiarly adapted to the style of practice carried on in the British Isles, but there are many useful little hints as to stock mixtures which would be of service to any busy practitioner.

A. J. H.

A Pocket-Book of Clinical Methods. By CHAS. H. MELLAND, M.D. (Lond.), M.R.C.P., Physician to the Ancoats Hospital, Manchester. Bristol: John Wright & Co. London: Simpkin, Marshall, Hamilton, Kent & Co., Limited. 1903.

This is a concise little book of 75 pages, dealing with the chemical and microscopical examination of the sputum, gastric contents, urine, feces, pus and blood. The book is precise, as well as concise, and will be found of value to students.

W. H. P.

The Canadian Journal of Medicine and Surgery

A JOURNAL PUBLISHED MONTHLY IN THE INTEREST OF
MEDICINE AND SURGERY

VOL. XV.

TORONTO, JUNE, 1904.

NO. 6.

Original Contributions.

A CASE OF CEREBRAL TUMOR PROBABLY OF LEFT FRONTAL LOBE.*

BY CAMPBELL MEYERS, M.D., M.R.C.S.(ENG.), L.R.C.P.(LOND.),
Neurologist to St. Michael's Hospital.

As the history of the following case of intra-cranial growth presents some features of interest, I have much pleasure in laying it before you. The patient, J. S., aged 52, male; occupation, farmer; was kindly referred to me by Dr. Barnhardt, of Owen Sound, with a history of cerebral disease. He entered my private hospital, October 14th last. In regard to his family history, his father died of what was considered a tumor of the brain, but no post-mortem was made to confirm the diagnosis. He had an uncle on the paternal side who suffered from brain trouble, for which he was treated by the late Dr. Sweetnam, who diagnosed a tumor of the brain. This diagnosis was confirmed by a post-mortem examination, when a tumor about the size of a hen's egg was discovered in the parietal region of the left hemisphere. A remarkable point in the history of this case was the absence of any severe headache. There was also a history of injury to the head about one year previous to his death. The remainder of the family history presents nothing of importance, the patient's mother being alive and well, aged 75, and the patient has four brothers and two sisters who are in excellent health. There is no history of tubercle or insanity in the family.

Previous History.—Patient always enjoyed good health, and worked on his farm until five years ago, when he began business for himself in Owen Sound. He was always temperate in his habits, and never had any venereal disease. He suffered from an

*Read before Toronto Clinical Society.

accident about fifteen years ago, having been struck on the left side of his head by the corner of a bale of hay. He was taking a load into Owen Sound, and walking beside the waggon at the time, when one of the bales slipped and struck his head. He was stunned for a time in consequence, but was able to drive his horses home later in the day, and felt no serious ill effects from it. He has never suffered from ear disease.

History of Present Illness.—This began with an attack of grippe in January last, 1903. Following this he complained of a feeling of fulness in the head, as though he were suffering from a severe cold. This was followed by a peculiar sensation about the vertex somewhat resembling an ache. He has never had any severe pain in his head. His speech gradually became involved, and he found a difficulty in expressing himself owing to his inability to pronounce words, for while he was quite well aware of the word he wished to use, he had a difficulty, which gradually became more marked, of giving expression to it. His memory became impaired, so that he would forget many of the details of everyday life. Three weeks before entering my hospital, he began to suffer from extreme drowsiness, which would last for an hour or two, but recur several times during the day. He never had any attacks of spasm or any paralysis in any part of his body. About a week after the drowsiness came on, the saliva began to dribble from his mouth, and this has continued more or less constantly since, being present at night as well as during the day. His gait has recently become unsteady, so that he will stagger at times when walking, although he can still walk a considerable distance, but not with the comfort he formerly enjoyed. He does not complain of vertigo.

Physical examination, October 14th, 1903, shows a well-developed man of 5 ft. 8 in. in height. He is well nourished and weighs 132 lbs. His general expression is fairly bright, but he is much troubled from his inability to express himself. He can only utter a word or two, being quite unable to frame a sentence. Mentally he is quite clear, and his intelligence quite up to the standard of a man in his station of life. There is a constant dribbling of saliva, which was very irksome to him. The examination of his head shows a swelling, about 2 1-2 inches in diameter, over the left parietal region, which is dense, and appears to be due to thickening of the cranial bone. There is no tenderness about it, and the patient is not aware of the length of time it has existed, as it caused him no inconvenience. He thinks probably one or two years. Except for this, the cranium presents no abnormalities. The examination of the face shows all movements normal and no paralysis of any muscles. He can blow out a candle quite well. His pharyngeal reflex, however, is entirely absent. His tongue is protruded in the median line.

The eye movements are all normal, the pupils equal, and react to light and accommodation. He does not complain of any disturbance of vision. The ophthalmoscopic examination, however, showed a well-marked neuritis of the left disc, a beginning neuritis in the right. The right disc was distinctly swollen, the physiological cup filled in, and the border was blurred in its entire extent. This condition of the discs was verified later by Dr. Ryerson, who kindly saw him with me. Taste and smell unaffected, and there is no disturbance of sensibility on face. There is no tenderness on tapping the skull. The upper extremities show no atrophy nor any localized loss of power. Dynamometer, R 65, L 50. Elbow and wrist jerks present, and equal on the two sides. Chest examination shows heart and lungs healthy. Pulse, about 80, and regular. Examination of abdomen negative. Urine was normal in amount, and chemical examination showed no marked abnormalities. In the lower extremities the knee jerks were active and equal on the two sides. The superficial reflexes were not marked, and Babinski's sign was absent. There was no ankle clonus. There was no localized loss of power in either leg, although here, as in both arms, there was some general weakness when compared to the patient's muscular strength before his illness. There was no inco-ordination in any of the limbs, and Romberg's sign was absent. The patient was unable to write either spontaneously or from dictation, but could read to himself. Soon after beginning treatment, the patient gained in flesh, increasing in weight four pounds the first week. Part of this gain he lost later. His aphasic condition was *variable*, and at times he improved so much that he could put a sentence fairly well together, and within the next day or two this power would be lost. There was no marked change except this in his condition until the end of the third week, when he became much more drowsy, and his gait more staggering. At this time also the sternomastoid on the left side became distinctly weak, the first evidence of any localized loss of power which he exhibited. His temperature was normal throughout, and there had not been any derangement of the heart's action. He took his food well, and had never been troubled with vomiting during any period of his illness. As his condition was becoming serious, I advised the friends to try an operation. They asked if it would cure him, and I replied that there was no certainty of its doing so. Dr. W. P. Caven then saw him with me in consultation, and concurred with me in the diagnosis. As neither of us, however, felt very hopeful about an operation, the friends decided to take him away, which was done on November 7th, the patient walking away with them.

The case presents several features of interest: (1) Hereditary influence, which is rare in these cases; the father probably suffering from brain tumor, and the uncle undoubtedly doing so, as

was shown by the post-mortem. (2) Had trauma anything to do with this case? While the nutritive changes consequent on mere concussion may be the starting-point of a tumor, I think in many cases this influence is over-rated, unless the symptoms develop within a short time after the accident, and are clearly traceable to it, and such cases form a very small proportion of the total number.

In regard to diagnosis, if we assume that the symptoms are due to organic disease, rather than functional, in which I think we are justified from a consideration of the symptoms, the questions then arise: (1) Is the diseased condition due to a tumor? (2) if so, what is its location? and (3) what is its probable nature?

As to the question, Is it a tumor? one is at once struck with the absence of nearly all the cardinal symptoms of tumor, such as headache, vomiting, giddiness, general convulsions, etc. Gowers says headache is absent only in very rare cases of tumor, and yet in the case under consideration it was never complained of to any degree. The absence of any spasm or general convulsions is also very unusual. We know, however, that cases of tumor have been discovered post-mortem, which gave no evidence of their existence during life. I recollect especially one shown me by Bramwell, in which the whole upper two-thirds of the Rolandic area had been destroyed by a sarcoma, which had produced no symptoms whatever of paralysis during the lifetime of the patient. Similar instances are recorded by Starr, in his recent work on "Organic Nervous Diseases," and Mayer has collected several such cases, as well as Buzzard. These facts are the more interesting since we occasionally examine the optic discs of a patient, to find he has consecutive atrophy of them, due probably to a tumor, which has become quiescent, and which has caused no other symptoms. In the absence of the cardinal symptoms above-mentioned, are we still justified in regarding the case as one of tumor? I believe so, the chief point in favor of it being the distinct optic neuritis which was present. Optic neuritis may, it is true, be produced from other causes than tumor, notably anemia, kidney disease, and lead poisoning. The general appearance of the patient at once excluded anemia, examination of the urine showed his kidneys to be unaffected, and there was no source to which lead-poisoning could be traced, nor had he any further symptoms of it. Hence, in the absence of all these affections, the distinct neuritis indicated clearly a new growth in the cranium. In addition to the condition of the discs, the aphasia, although variable to some extent in its intensity, pointed directly to disturbance of function at least, in a certain area of the brain. The marked drowsiness from which he at times suffered, as well as the staggering gait without any disturbance of the reflexes, etc.,

to account for it, would also indicate a cerebral lesion. The gradual mode of onset points strongly to tumor, and would at once exclude common vascular lesions, cerebral hemorrhage and acute softening. The affection of the speech might lead one to think of general paresis, especially as so many of the usual symptoms of tumor were absent, and that there were some marked mental changes. The absence, however, of tremor of the face or lips, as well as the absence of the peculiar mental characteristics of general paralysis, would exclude this disease. The diagnosis from abscess is more difficult, but the absence of ear disease, distant suppuration, or recent injury to account for it, together with the entire absence of elevation of temperature during the acute stage, would contra-indicate it. I need not detain you longer with a differential diagnosis with the symptoms of the case under consideration, and hope to have shown that these symptoms are due to tumor.

Granted that a tumor exists, we have now to consider the second question, viz., What is its location? and in discussing this question a distinct difference between the results of irritation and of destruction produced by a tumor must be considered. In the first place, the absence of direct implication of the cranial nerves (except the optic), combined with the other symptoms, would indicate that the lesion was not at the base of the brain, and did not directly implicate the crura, pons or medulla. The staggering gait leads one to think of the cerebellum, and we hope later to show that some of the fibres to this part of the brain were affected, but the distinct aphasia points clearly to a lesion elsewhere, viz., in the third left frontal convolution. Hence it is to the left pre-frontal lobe that we must look for an explanation of the symptoms. The entire absence of convulsions or spasm would indicate that the site of the tumor here was not in the cortex, but in the white substances beneath it. As the degree of the aphasia was variable, I think this would indicate that it was a symptom of irritation, probably an irritative inhibition, rather than a result of the destruction of the posterior part of the third left frontal convolution, by the tumor itself. In regard to the staggering gait, Bruns has recently recorded three cases of frontal tumor in which a staggering gait, similar to that observed in cerebellar disease, has been observed. This, I believe, is due to an interruption of the fibres of the fronto-cerebellar tract, which connects the pre-frontal lobe with the opposite cerebellar hemisphere. The course of the fibres of this fronto-cerebellar tract is interesting, owing to the fact that destruction of it induces symptoms resembling disease of the cerebellum which may actually be in a different part of the brain. These fibres converge from the pre-frontal lobe, passing downward in the anterior limb of the internal capsule, and pass thence through the crura, lying

internal to the pyramidal tract in this situation. They then continue their course downwards to the grey matter in the crustal region of the pons, and here are connected through the middle cerebellar peduncle with the opposite cerebellar hemisphere, chiefly with its lateral and posterior regions. These fibres degenerate downwards, and when the cerebellum is congenitally absent, these fibres are also absent. In this way is a direct connection formed between the frontal lobe and the opposite cerebellar hemisphere.

In regard to the somnolence, which was very marked in this patient, Starr remarks that it must be considered as a local sign of frontal lobe disease. The absence of motor symptoms in the earlier stages would indicate that the central convolutions were not the site of the tumor, and the absence of disturbance of tactile sensibility would also confirm this view, since a lesion of these convolutions posterior to the Rolandic fissure is frequently accompanied by a disturbance of tactile sensation, or by inco-ordination of movement, both of which were absent in the present case. Gowers describes an extensive softening of the middle left frontal, and part of the lower left frontal, convolutions, without either motor or sensory loss. This patient presented neither word deafness nor word blindness, indicating thereby that the first temporal and the angular gyri were unaffected. Hence I would consider it probable that the tumor in this case was situated in the white substance of the left pre-frontal lobe, immediately in front of the middle and lower portions of the ascending frontal convolution, that Broca's convolution was affected indirectly by irritation, and that the subsequent affection of the sterno-mastoid was due to the same cause, the irritation gradually radiating backwards, thus involving the fibres of the corona radiata beneath the lower part of the Rolandic area.

In regard to the third question, viz., the probable nature of the growth, I will not attempt to discuss the various forms it might assume. Suffice it to say that in the present case tubercle, syphiloma, glioma, or sarcoma would be the most likely. The absence of phthisis or other tubercular lesion in the patient, or his history, would contra-indicate this form of tumor. The negative history of syphilis or any possible contamination from venereal disease, would probably exclude syphiloma. With these two forms of tumor excluded (and they are the most frequent in the brain), we have sarcoma and glioma to consider. Of these, sarcoma is more likely to arise from the membranes or cortex than in the white substance, and as I think in this case the site of the tumor, is in the white substance, hence I would consider it more probably of the nature of a glioma than of sarcoma, a probability which would be increased by the fact that glioma is the more frequent in the brain.

THE CURE OF CONSUMPTION BY FEEDING THE PATIENT WITH SUBCUTANEOUS INJECTIONS OF OIL, AND ITS DIGESTION BY THE WHITE GLOBULES OF THE BLOOD

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Chairman of the First Organization Committee of the American Congress of Tuberculosis, and
one of the Vice Presidents of the International Congress of Tuberculosis.
St. Louis, 1904.

By the method of treatment which I am about to describe in this paper I believe that consumption can be absolutely cured. First, however, before entering into the merits of this treatment, let us briefly consider the disease.

Tuberculosis is a disease of malnutrition, and while the presence of the germ confirms the diagnosis, before the germ can grow it must find a suitable soil, there must exist a pretubercular condition. It is estimated that we all breathe in a great many of these germs, but that they cannot grow in a healthy well-nourished individual. People who have consumption do not eat fats, oils and cream in sufficient quantities. The first requisite in an attempt to cure tuberculosis has been for many years, and particularly of late years, to feed the patient on various oils, and the most successful sanitariums have adopted a process of food forcing, using the fats of meats, butter, and cream as the principal foods to be relied upon to effect a cure, each article of diet being selected for its fat-producing and strength-giving properties. To this a vigorous out-of-door life has been advocated, because why? It promotes appetite and the out-of-door life is conducive to place the body in condition for the absorption of more fats. I was one of the first to advocate tent-life for the treatment of tuberculosis in two articles, entitled, "Camp and Out-door Life as an Aid to the Permanent Cure of Tuberculosis," February 21st, 1900; and "Some Results of Camp and Out-door Life in Northern Wisconsin," Congress of Tuberculosis, May 15th, 1901 and some four years ago I located an out-of-door camp for the treatment of these invalids in Northern Wisconsin.

To maintain nutrition has long been considered the prime requisite of cure, and an increase of weight is an indication that nutrition is overcoming the disease, and as weight increases there comes strength, and the passing away of the other distressing symptoms, such as the products of the disease, expectoration of mucus, fever and finally cough. Prof. Osler has stated that the arrest and cure of the disease is entirely a matter of nutrition and that the whole object of treatment is to fortify the patient's con-

stitution against the inroads of the disease so that the individual cells of the body have the stamina to fight against and destroy the tubercle bacillus. Regarding tuberculosis, Dr. J. H. Elliott, *Canadian Journal of Medicine and Surgery*, March, 1903, says that nutrition is dependent upon the proper assimilation of food, while improvement must be proportionate to the increase in the amount assimilated. All therapeutic measures, says Marfan, should be devoted to the end of nutrition, and the earlier such measures are instituted the greater the prospect of cure. Without going further into the fact that the whole cure of tuberculosis up to the present time is dependent upon our ability to nourish the patient, except to say that the methods of Dettweiler, von Leyden and Hoffman of Germany depend upon results from nutrition, and to this end they have advocated forced diet regardless of appetite. If the patient was to recover he must eat. Out-of-door life was important inasmuch as it supplies to some extent the appetite.

Anorexia is one of the worst symptoms against the cure of tuberculosis. It is impossible to get the average patient to eat enough fats, and a person who eats plenty of fats never has consumption. A person who has consumption is the one who leaves the fat from his meat, eats very little butter, and little of cream and milk. He does not and has not lived upon a proper nourishing diet. When a patient is far advanced in the disease he is unable, on account of this loss of appetite and nausea, to eat sufficient food to maintain nutrition, and therefore gradually declines as the disease advances.

In the above few words I have tried to convey the importance of nutrition in the cure of this disease, believing that the cure rests entirely upon our ability to so nourish the system and stimulate the cells of the body that they will throw off the disease.

THE DIGESTIVE POWER OF THE WHITE BLOOD CELLS.

Experiments have been conducted principally by the Italian physicians, and a few German, viz., Gabrelschewski (*Arch. f. Exp. Path.*, 1891, bd. 28), Czerny (*Arch. f. Exp. Path.*, 1893, bd. 31), Leviertato (*Arch. Italiano di Clinica Medica*, n. 3., 1893), Tarchetti e Parodi (*La Clinica Medica Italiana*, n. 10, 1899), Kraminer (*Berl. Klin. Woch.*, n. 6, 1890), Oliva (*Gazzetta degli Ospedali*, 17 giugno, 1900), Tarchetti C. ("Sull'esistenza di un fermento diastase nei corpuscoli bianchi," *Gazzetta degli Ospedali*, n. 90, 1900; "Sull'natura e sul significato della sostanza iodofila dei globuli bianchi," *La Clinica Medica Italiana*, n. 8, 1900; "Di una pretesa degenerazione amiloidea sperimentale," *La Clinica Medica Italiana*, n. 7, 1900; "Ricerche

nulla degenerazione amiloidea spermintale," *La Clinica Medica Italiana*, n. II., 1902), Porcile V., "Sul valore semeiologico della reactione iodofilia nei purulenti," *Gazzetta degli Ospedali*, Milano, n. 102, 1900), which go to show that there is a glicogenic ferment in the cells which has the power to digest starches. These experiments have been carried on principally to discover a cause for the disease diabetes. It has also been shown more or less perfectly by some of these same observers that fats also may be digested by the blood, and that the white blood cells have the power of digesting oils. Though these experiments, according to Tarchetti (*Clinica Medica Italiana*, 1900), are not definite, it is clear that the white cells of the blood possess a ferment or property which has the power of digesting fats and starches, and without going into the process biological, chemical, phagocytic, osmotic, etc., which has been gone into by Dr. Spezia in the numbers 5 and 6 of the *Gazzetta Medica Lombarda*, 1904, for, as Tarchetti (*Gazzetta degli Ospedali*, n. 28, 1904) says: "Is it possible to follow the rapid course of oil injected into the internal organism and the phenomena positively chemical of osmosis, of phagocytosis, and of digestion intercellular?"

Upon the digestion of oils by the blood I base this claim for a cure of tuberculosis. So far I have tried to show (1) that the cure of consumption must necessarily depend upon a proper supply of nutriment, the disease being primarily a disease of malnutrition; (2) that consumptives suffer so much from loss of appetite, nausea, and perhaps non-absorption, that, as a rule, they are unable to take sufficient amounts of fats to overcome the disease; (3) that the blood cells possess a ferment capable of digesting fats.

I will now give my results in the cure of tuberculosis by the subcutaneous injection of oil. The oil which I have selected in the treatment of my cases has been olive oil of a very high grade, thoroughly sterilized, using olive oil in preference to other oils on account of it being non-irritating and very readily accepted by the system. The point selected for the injection has been over the shoulder blades, injecting one day over one shoulder, and the next day over the other, excepting when a large amount of oil is used when it is necessary to inject over both. There is very little pain connected with the injection and the following day it is hardly possible to find where the injection was made. By being careful in my technique of cleanliness and sterilization, so far no infection has taken place, and consequently no soreness, though I believe the non-irritating properties of the oil has a great deal to do with this. The amount of oil varies. I commence by injecting 12 cc. of oil each day, and the third day increase the amount to 24 cc., and about the fifth day to 40 cc. of oil. If no unpleasant

or inconvenient symptoms arise I keep gradually increasing the dose to full tolerance of the patient which varies with the individual and the stage of the disease. Those who are poorly nourished will sometimes assimilate large quantities of oil up to about 200 cc. daily. In this manner I have treated nine consecutive cases successfully, and within 24 hours after each treatment there is a remarkable benefit from all the symptoms, such as diminished morning cough, night sweats, increased strength, and finally gain in weight. Some of the very worst cases of tuberculosis under this plan of treatment have gained each day, and I believe have been thoroughly cured. The syringe which I use is an aspirating syringe reversing the piston with a thumb-screw, it requiring considerable pressure to force the oil under the skin.

By injecting oil thus it is absorbed and assimilated by the blood-cells, and there is a great increase in their numbers. Thus all of the indications for the cure of tuberculosis is met. It overcomes the disease through increased phagocytosis and thus the active cells destroy the disease. Nutrition is re-established. The time required to overcome all symptoms is remarkably short, and one will be greatly surprised at the benefits which come with treatment. Physicians should use great care in the amount of oil given, for very large doses, if long continued, might result in fatty degeneration of certain organs, but with the disease tuberculosis this is not so apt to occur, as tuberculosis and fatty degeneration are antagonistic. I have based the claims of this treatment as a cure for tuberculosis from my experience and clinical evidence and from my conviction. I give my results this early, believing that the cure of tuberculosis is solved and that by so doing many lives will be saved. Of course, to the above treatment should be added all that has been found useful in the treatment of tuberculosis, principally of which is a forced diet of articles selected for their nutrition, such as meat, fats, butter and cream, out-of-door life, and hygiene.

I hope and trust that physicians will at once take up this method of cure, and I respectfully request that those doing so will communicate their results to me, as, by broader knowledge, much good may come, and it is my desire to report these results at the International Congress of Tuberculosis to be held in St. Louis of this year.

ALKALOMETRY.

BY ROBERT M. STERRETT, M.D.,

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ALKALOMETRY, to the student of Greek and its English derivatives, signifies "*measured alkaloids*." To the student of advanced therapeutics, it, like many other scientific terms, serves to define and specify in a single word a collection of kindred ideas—a method.

It stands for the employment in medical practice of soluble pills (granules), each containing a definite amount of the *active principles* of medicinal plants (alkaloids, glucosids, resinoids, etc.) and made by a process of manufacture whereby the element of human inaccuracy is practically eliminated. Thus it represents in organic materia medica the dynamic element of the drug, isolated from its crude environment, in a soluble form for prompt, energetic exhibition in diseased conditions, followed by uniform and clearly anticipated results.

It represents also in each granule, a standard of measurement of the minimum adult dosage, which insures scientific accuracy as to the amount of drug-principle administered in any case without requiring the extemporaneous mathematical calculation by the physician of a given number of doses (in from three to six ounces, or more, of diluent) as is usual in the old way of writing prescriptions.

Alkalometry, therefore, represents purity, drug-integrity, solubility, standardized dosage, and, in consequence of these, accuracy, efficiency and safety in therapeutics.

A colleague recently remarked to the writer that "it would do well enough for a lazy doctor who did not care to write his prescription, or to an illiterate one who could not." All of which emphasize the necessity for a clearer comprehension of the advantages of active-principle remedies over galenicals.

We all feel our own importance and would like to have it understood that we do not take anything for granted nor at second-hand. But we do—all of us. When we write a prescription calling for so many drams of a tincture or fluid extract; so many ounces of syrup and "*aquæ*" or "*vini*," q.s., to make a total of so many ounces, do we not take it for granted the manufacturing pharmacist has used the proper drug (root, leaf or seed) in the proper condition as to fineness or coarseness of powder, and that he has used the proper menstrum, alcoholic or otherwise, to make the tincture or fluid extract—every step in accordance with the

pharmacopœia: and that our local pharmacist has used due care in combining the ingredients called for in our prescriptions? And what do we get? As Prof. Fenger used to reply when asked the why of the unknown—"God knows." All uncertainty as to drug strength is eliminated when you prescribe or dispense the active-principle, isolated from its uncertain environment in the natural state, and no change can take place, with ordinary care, in the activity and remedial usefulness of your medicament under these circumstances. It remains the same in this regard ten years after it left the manufacturer's laboratory. *Its individuality is maintained*—not lost as in the changeable galenicals; changeable by the action of light, heat or cold, evaporation, etc., and uncertain because of their modified active-principle strength, according to the locality where the drug from which they were made, grew; whether in the shade or sunlight; during an unusually rainy or dry season; and also as to the time of year it was gathered, and whether made from dried or fresh drug, etc.

The *standard granules* of alkalometry, always accurate as to identity of drug (active principle or other medicament) and uniform as to amount contained in each, are a decided help to the *busy* doctor; a solace and comfort to the conscientious one; and certainly cannot make a lazy one more so, nor increase the number of blunders of the illiterate. Fortunately, the latter class is fast disappearing from the ranks of the profession because of the high standard required for license to practice in most of the States of the Union.

There is great danger that the casual reader may misinterpret the true meaning as intended by so general a term as "alkalometry," and conclude at once that it represents a new "school"—"ism" or "pathy." From the opening paragraphs of this essay it will be easily understood by the uninitiated that such is not the meaning nor application of the term. It represents a timely reform of existing methods in which there is a crying need of improvement. We all hope for the day (now without doubt drawing near) when there will be but *one school* of medicine, since, in the very nature of the thing, in essentials, there can be nothing else. Anatomy, physiology, chemistry, materia medica, obstetrics, are not *arbitrary* things, but are of the eternal—the basic—the fixed. There may be, properly, schools of painting, music, poetry, sculpture, architecture and the drama—all of which rest upon the ever-changing mood and environment of human thought; but not so of medicine, whose principles (except as to the single branch, therapeutics) are based upon the idea of the *universal*, not *circumscribed*, thought and knowledge.

But, for convenience and identification, some word must be employed to represent just what alkalometry *does* represent, be-

cause it means so much that is advantageous to our art, and does not in any sense presume to be a new school or system.

As to the extemporaneous prescription compounding and the exercise of one's knowledge of chemistry and pharmacology, these things are a part of our college education, as arithmetic, interest and discount are to the prospective banker, but no bank clerk ever consumes valuable time computing interest in a bank in these days; he refers to an interest table compiled by an expert. So, the architect uses a graduated rule, the civil engineer a ready-to-hand chain of reliable make, the apothecary his stock of standard weights and graduates, and the alkalometrist his standard granules which are prepared in accordance with certain uniform principles by authoritative makers.

It only remains to make sure of the manufacturing pharmacist and one's local apothecary. If the one always uses the drug-principle indicated upon the label and in the *full amount* of dosage, and the other has a reputation for honesty and reliability in compounding prescriptions, it is even preferable to pay a trifle more for one's medicaments or prescriptions under such circumstances rather than economize (?) by experimenting with the unstandardized products of unknown laboratories, or the uncertainties of some of our "cut-rate" druggists.

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Proceedings of Societies.

CLINICAL SOCIETY OF THE NEW YORK POLYCLINIC MEDICAL SCHOOL AND HOSPITAL.

THE stated meeting of the above society was held on April 4th, 1904, the President, Dr. James Hawley Burtenshaw, in the chair.

Syphilitic Periosteitis.—Dr. W. R. Townsend presented a patient, aged 26 years, with a syphilitic condition of the wrist. Five years ago a diagnosis of tuberculosis of the wrist was made, and a partial excision performed, which resulted in a movable joint. Two years ago a tapering swelling was noticed at the phalangeal joints, attaining its greatest diameter at the articular surfaces. When first seen by the speaker, three weeks ago, he had X-ray photographs of the hand taken, and by this means established the diagnosis of syphilitic periosteitis, with joint inflammation. This condition undoubtedly existed when the excision was done for the relief of the supposed tubercular disease. It was an excellent illustration of the value of the X-ray in diagnosis, and especially in differential diagnosis. Radiographs of a tubercular wrist were also shown, in order to bring out clearly the difference between a syphilitic and a tubercular process. The patient had been on anti-syphilitic treatment for three weeks, and in that time the pain had decreased, motion had increased, and her feet, which were affected by a similar pathological condition, were much improved, making walking much easier. The speaker also showed a radiograph in which the bones of the ankle were affected by syphilis, and, by way of comparison, one of a foot in which the bone was normal, to illustrate the changes which the bone and surrounding tissues undergo in syphilitic periosteitis.

Myositis Ossificans.—This case was also reported by Dr. Townsend. He said that this disease, in which the muscles undergo bony changes, is very rare. The most common cause is traumatism, and a Japanese surgeon has reported several cases since the beginning of the Russo-Japanese War, in cavalry officers whose adductor muscles have been damaged and this condition has resulted. When there is no history of traumatism, there is no clue as to why certain muscles should be affected. In the case reported, such a large mass of muscles was infiltrated with bone

that there was no motion at either knee or ankle. In one side the femur and muscles were normal, which could be distinctly seen by means of the X-ray apparatus; on the opposite side, extending from the pelvic along the track of the adductor muscles there was a bony deposit almost similar to the bone in the shaft of the femur.

The second radiograph showed the process extending into the lower leg. The flexed bone could be seen, and extending to one side a solid mass of infiltrated bony muscle. In a short time all the muscle on that side of the limb would be affected, and there would be a solid bony mass in addition to the fibula itself. The muscular motions, of course, will be lost, and the patient may have to lose the lower extremity. The prognosis in these cases is very bad and treatment is unsatisfactory. Such cases are rare when, as in the present instance, there is no history of traumatism.

Hysterical Cough.—Dr. G. B. McAuliffe presented a young woman who was suffering from paroxysms of hysterical coughing which resembled in sound the barking of a dog. About one year ago she began to cough, and has coughed almost uninterruptedly ever since. Examination showed no local lesion, and the cough seemed to be purely laryngeal. Nothing abnormal is to be seen in the larynx, except a slight redness over the arytenoids. Extra-laryngeal applications of electricity afford relief, but internal medication has been of no avail. The application of adrenalin by means of a spray gives relief for twelve or fourteen hours, when another paroxysm comes on. This, however, is merely a symptomatic treatment of the cough.

Dr. D. J. McDonald said that he had seen the patient about a year ago, and that he had applied electricity each day, first using the high-tension and later the galvanic current. When first seen by him she had presented every symptom of hydrophobia, barking and foam at the mouth, but was able to walk about. Under treatment her condition improved so that the attacks occurred only monthly, and later only once in two months. She was also given adrenalin and arsenic internally.

Fracture of the Base of the Skull.—Dr. John A. Bodine showed a boy who had been operated on by him at St. John's Hospital for fracture of the vault involving the base of the skull. The patient, while coasting down a long hill, having acquired a terrific impetus, crashed into a waggon, his head striking the hub of the wheel. The temporal-parietal region of the skull was not unlike an egg-shell crushed in. He was taken to the hospital in a condition of profound shock, and it was thought unwise to resort to any operative procedure to relieve the brain pressure or to stimulate with salt solution for fear of inaugurating intracranial bleeding. This condition of stupor lasted three days and three nights, when his condition began to improve. With practi-

cally no anesthesia the larger portion of the right parietal bone was removed. The fracture was compounded and extended through the temporal bone and into the base, and was again compounded in the vault of the pharynx. He had bled profusely into his stomach, which blood was vomited. When all of the depressed fragments of bone had been removed the boy's condition improved steadily until he was out of danger. Some time during the second week after the injury right-sided facial paralysis, paralysis of the right external rectus muscle of the eye and loss of taste in the right side of the tongue was noted. In addition, there was symmetry of the soft palate during phonation. The study of the anatomy of the parts thus involved demonstrated clearly the line of fracture at the base of the skull. With facial paralysis, with symmetry of the soft palate and loss of taste on the right side, the fracture must have included the bony part transversed by the facial nerve between the geniculate ganglia and the origin of the chordæ tympani nerve. Furthermore, as there was paralysis of the external rectus muscle of the eye, without involvement of any of the nerves that lie in juxtaposition with the external rectus in the cavernous sinus, the line of fracture must have been near the posterior clinoid process of the sphenoid bone. It does not seem reasonable to expect that the ophthalmic nerve would have escaped had the line of fracture been anterior to these processes. The fact that the paralysis came on two weeks after the receipt of injury would indicate that it was due to an inflammatory process of the nerves, making the prognosis as to the ultimate recovery of these paralyzed muscles better than if the paralysis had been coincident with the injury.

Deformity Following Fracture of the Condyle of the Humerus.—Dr. Bodine also showed a case of deformity following fracture of the external condyle of the humerus. When the patient was seen the arm was swollen, and a most careful examination under anesthesia demonstrated nothing more than that it was a fracture of the external condyle involving the joint. It was treated in a position of acute flexion, the hand midway between pronation and supination. When healing had occurred and the arm was taken down, the existing deformity over the external condyle was found. Nearly a full range of motion of the joint has been secured. Since this patient's injury the speaker has seen two other fractures of the external condyle identically like this one. He said that the deformity is due to the fractured piece being turned at an angle of 180 degrees, the surface looking toward the skin, and that there is but one way to remedy it—by open suture with reposition of the fragment. This was done, under cocaine anesthesia, in the last two cases seen, with perfect results.

Regeneration of the Radius from its Periosteum.—The next patient, shown by the same speaker, was a splendid example of a regeneration of the radius from its periosteum. Two years ago the little patient sustained an ordinary Colles' fracture. At a nearby dispensary the arm was put up between an anterior and posterior splint, padded with cotton, the bandage including the hand almost to the finger tips. As this happened in July and the boy was not told to return for three days, violent cellulitis of the arm developed. The boy was seen by the speaker three days after being injured, and when the splint and dressings were removed two lines of lymphangitis, starting from the interdigital clefts of the three outer fingers could be plainly seen. At the time of the injury the boy was playing on the street, and the accumulated germ filth in the interdigital clefts, under the moist perspiration induced by the dressing, was the port of entry of the infection which caused the cellulitis. It was a practical demonstration of the fact that no fracture should be put up without the skin being in a condition of surgical cleanliness. An analogy of this is seen in infection of the glands of the groin from filth around the frenum, without any break in the mucous membrane. The entire radius necrosed and was removed. The boy has a strong arm, flexion, pronation and supination being almost perfect, but there is considerable deformity.

The next patient was an example of Colles' fracture, the deformity not being corrected at the time of injury. There had been entire loss of function, immobilization of the wrist, loss of supination and pronation, as well as deformity. The operation consisted in chiselling through the line of fracture, the incision in the skin being placed on the dorsal end of the wrist rather than at the outer side of the radius, because of the uncertain position of the radial nerve. After correcting the deformity of the radius it is usually found that the hand is still in abduction and there is a projection of the lower end of the ulna which can only be corrected by taking a section out of this bone. This had been done and all the motions of the wrist and forearm had returned and the deformity had been entirely corrected. This patient was operated on two years ago, and a second patient was also shown, operated on three months ago, with the same result. Casts were presented, showing the condition of the arm prior to the operation. A third patient was operated on three weeks ago. The after-treatment in these cases of ancient Colles' fracture is the same as in a recent fracture, that is, a straight splint on the posterior aspect of the arm and the hand carried into extreme abduction, with flexion of the wrist. The speaker did not believe it wise to ever put the arm between an anterior and posterior splint in Colles' fracture.

Unilateral Ankylosis of the Jaw.—Dr. Bodine also showed a patient, 18 years of age, who had an attack of scarlet fever sixteen years ago, followed by a suppurative parotiditis of the right side. A number of incisions were made to let out the pus, as the scars of the face showed. Unilateral ankylosis of the lower jaw followed. The patient had been brought up, throughout his childhood, as well as his adolescence, entirely on liquid food, his teeth being closely in apposition. Some four years ago an attempt was made at one of the hospitals to relieve the condition. The scar of this operation gave a clue as to what the surgeon attempted to do. The skin incision was above the exit of the facial nerve. Apparently a linear osteotomy was performed, but it failed to benefit the patient beyond permitting him to separate his jaws about a quarter of an inch. The speaker's incision was placed just above the angle of the jaw. The contracted soft parts were separated from the bone, and, then, instead of a linear osteotomy, a triangular section of the ramus was removed, the base of the triangle being the posterior border. Still the patient could not open his mouth, and the points of scissors were passed through a cleft in the bone, and the contracted internal pterygoid muscle clipped. The mouth could then be opened to its full extent. This case beautifully showed that sixteen years' immobilization of a normal joint, that is, of the opposite healthy joint, does not produce ankylosis.

A Demonstration of Skene's Method of Electro-Hemostasis. was given by Dr. W. R. Pryor. He said that the celebrated Scotch surgeon, Keith, whose name was particularly associated with the removal of massive abdominal growths, treated the pedicles in the following manner: He grasped them with a powerful crushing-clamp, and by means of a superheated iron heated this clamp so as not to burn the pedicle, but to cause it to become dry and parchment-like. In order that this might be accomplished, and yet not to apply too much heat, so as to produce a dead tissue, as in an ordinary clamp and cautery operation, he had to exhibit an unusual acquaintance with the details. However, his pupil, Skene, of Brooklyn, became impressed with the thoroughness of the hemostasis, which Keith secured, with the absence of pain in the stump, the absence of suppuration, and with the smooth convalescence of the patients, and having seen the complications which arise from the application of ligatures in certain situations, he, with the assistance of a skilled electrician, devised instruments for very simply doing what Keith did by a complicated technique, and with absolute precision.

The vessels to be obliterated are grasped with heavy forceps, very much like the pile clamp; adjacent tissues are protected either by means of a non-conducting shield or gauze pad, and as

the clamp compresses the tissues a current of electricity is allowed to run through the clamp, heating it to about 190 degrees. Taking an ordinary ovarian pedicle as an example, a fair compression is secured for one minute; then for another minute, more compression; and then for another minute more still, the instrument being all the while heated by means of electricity to 190 degrees. Upon removal of the clamp the pedicle is found converted into a tissue exactly similar in appearance to catgut, translucent, in thickness only $\frac{1}{8}$ the original pedicle, perfectly dry and with the veins, arteries, nerves and muscular fibres all coagulated into one mass, in which one cannot be distinguished from the other. The softer the tissue, the slower should be the compression, and the less the time during which pressure should be applied.

"When my attention was first drawn to this method, a number of years ago, I said that it would open up to the possibilities of the vaginal section certain cases which never had been attempted that way, but I was unwilling to apply to my patients this method of controlling vessels until I had experimented. I therefore secured fresh arteries and sealed them by Skene's method. Upon subjecting them to hydrastic pressure, I found that it required six times the normal amount of intra-arterial pressure to open up the mouths of the vessels closed in this way; for instance, assuming that the pressure within an ovarian vessel is equal to three pounds, such pressure would have to be eighteen pounds, or greater than the aorta, in order to open the vessel. It is necessary, before applying any of these instruments, to have them thoroughly coated with sterile vaseline, otherwise they stick to the tissues.

"This method of occluding vessels should not be regarded as an absolute substitute for the ligation of large trunks by Wyeth's method, ligation in continuity, with approximation of the inner coats of the vessels without rupture, but it is a substitute for ligation of vessels in certain situations and under certain conditions. We all know the disadvantages of ligating *en masse* the edematous and necrotic pedicle of a twisted ovarian tumor, or the broad ligament in an ectopic gestation associated with infection and edema. We also know the disadvantages of tying off a pus focus, such as a gangrenous appendix or pyosalpinx. Again, in tying off certain very fragile pedicles, such as in ectopic gestation or sepsis, we see our ligatures cut through the swollen and friable tissues, producing a disagreeable degree of bleeding. Again, in hemostasis in vesical and rectal polypi, in erectile tissue about the vagina, in the tongue and spleen this method of hemostasis is far superior to any other. It has been found in the abdomen, where it is intended to perform intestinal resection, that two

broad lines of absolutely sterile and obliterated gut-ends can be approximated without the escape of a bubble of gas or feces to soil the suture-line; and afterward manipulation with two fingers opens the occluded ends, so as to make a continuous lumen. The twisted pedicle of an ovarian cyst, the infected pedicle of a dermoid cyst, and the highly vasculated pedicle of a pedunculated fibroma may be removed by this method with absolute satisfaction and without the introduction of any suture material.

"In my hands its chief application in operations within the abdomen has been in the performance of my operation of total abdominal extirpation of the cancerous uterus and adenexa, with preliminary hemostasis, produced by ligation of the ovarians, iliacs and obturators, together with extirpation of the upper third of the vagina. Skene's method of electro-hemostasis is the only procedure by means of which I have ever been able to control bleeding from the erectile tissue about the vagina in this operation.

"It would seem to me an ideal method to apply in extirpation of the gall-bladder at its neck. The removal of the spleen, I believe, can be accomplished by this method with an insignificant mortality, because secondary hemorrhage is impossible and much time is saved. I find that my acquaintance with this method of hemostasis enables me to treat all my cases of ectopic gestation through the vagina and without abdominal section. I have yet to meet an ectopic gestation which I cannot so treat, and can conceive of its failure only where the products of conception are too large to pass the vaginal outlet. It has enabled me to remove dermoid cysts through the vagina and all ovarian cysts which were small enough to pass through this canal.

"I will now demonstrate to you upon this living animal this method of controlling bleeding. We will first take the small intestine, which, in the dog, is many times thicker than in the human being. Assuming that I wish to make a resection of the intestine or that I propose to close the two ends, where resection is to be followed by end-to-end or side-to-side anastomosis, I clamp the gut in two places and turn on the current. I push the clamp to the first notch, and at the expiration of half a minute we see a slight bubbling along the sides of the clamp. The heat produced is not too great for the touch, although it is disagreeable to the fingers. At the expiration, the clamp is pushed down one more clamp, and now the bubbling is quite energetic. After the second minute the clamp is pushed to the third notch, or as far as it will go, and the tissues show the escape of very little steam, but the structures touching the clamp have become white. In two and a half minutes the clamp is taken off and the stump inspected; on one side I find that I have not applied sufficient pressure and

heat, whereas on the other the intestine which was grasped with the clamp is converted into a thin ribbon of translucent, parchment-like tissue. I reapply the clamp for half a minute to the other side, and the process is complete. Now, with scissors, I cut through these thin ribbons of tissue to see that the gut ends are absolutely closed. Without escape of gas and without escape of feces we have produced two stumps which are bloodless and uncontaminated by intestinal filth, and in which you can do such suturing as you see fit.

"The dog is pregnant, nearly to the full term, both cornua being filled with puppies. By manipulation I separate a portion of the uterine muscle and grasp it with the forceps, allowing it to remain on three minutes. I then cut the uterine muscle and you will find absolutely no oozing. The large utero-ovarian artery, which goes to one cornu, I purposely sever, so that you may see it spurt; then I grasp it with the forceps and subject it to heat and pressure for two minutes, and it is perfectly dry. Turning the animal over and pulling out the spleen, which in the dog has a head and quite a tail, I grasp it at the point where it is about two inches wide with the forceps, turn on the current, and by gradually increasing the pressure for one and a half minutes you will notice that this highly vascular organ is, at the point of pressure, converted into a thin sheet of parchment, through which one can almost see. With the scissors I sever this point and no blood escapes. I now take the large bunch of veins in one broad ligament, and clamp them; heat them to 190 degrees for one and a half minutes, remove the forceps and cut the stump, and no blood escapes.

"Dr. Skene was not content with the results in more than two hundred applications of his method, and by experimentation and the use of the microscope in the hands of an expert microscopist he demonstrated that the pedicle never became infected and that the current in the vessels never became re-established; that, whereas the tissue did become organized, it always remained as a homogeneous mass, in which it was impossible to identify nerves, muscular tissue, mucous membrane and vascular walls. My enthusiasm for this method of hemostasis is more than warranted, I can assure you, for I have applied it in double ovariotomy through the vagina, in the removal of pus sacs, in the removal of septic dermoid cysts, and many, many times in the removal of ectopic sacs, and in the removal of hemorrhoids and rectal polypi. I have found it to give me some satisfaction in work in the abdomen in the class of cases in which ligation is undesirable, namely, soft tissue, edematous tissue, necrotic tissue and septic foci.

"In transforming the current, one may use either a liquid

transformer and coil or an ordinary motor transformer; or one may employ a galvanic cauterizer-battery with the reostat. As to the expense, I have found that I saved in the first four months I had the instruments what my ligature material would have cost me. So far as the patient is concerned, not only is the method superior, under the circumstances in which it should be used, to application of ligatures, but the stumps are painless."

The paper of the evening on

The Physiological Function of Menstruation and the Part Played Therein by the Fallopian Tubes, was read by Dr. J. Riddle Goffe. The various theories to account for menstruation and an interesting historical sketch were presented. The rut of animals was considered an analogous function to that of menstruation. The process in woman is regarded as analogous to the moulting of birds, the shedding hair and horns by the deer, and the shedding of leaves by a tree. All the processes of life go in circles, determined more or less completely by the environment. All quadrupeds, as well as bipeds, experience a physiological function similar to menstruation, but the secretion does not appear externally in all of them. The appearance of the discharge in bipeds is due simply to posture, gravity bringing the discharge to the surface of the body. The same processes go on in quadrupeds, but on account of the position of the uterus it is retained in that organ, reabsorbed through the lymphatics into the blood, and finally consumed in the vital processes or eliminated through the excretory glands. In the native state wild animals experience a rut once a year, but domesticated animals, probably due to their environment and more luxurious care and keeping experience the phenomena, or analogous phenomena, more frequently. The monkey has been observed to menstruate five times a year, and the cow to have a vaginal discharge at intervals of about three weeks. The monthly recurrence in woman is thought to be due to her environment, and the result of civilization and its attendant luxuries. Life under these circumstances becomes more artificial; every factor in life is sought as a source of pleasure and the race becomes more sexually inclined.

Menstruation is usually defined by the best authors as a monthly hemorrhage. The speaker offered the following definition: Menstruation is a frustrated attempt on the part of nature to reproduce an individual of the species. The external sign of this is the menstrual discharge. Its *raison d'être* was described as follows: An ovum is thrown out from the ovary and gradually find its way toward the uterus. Nature at once begins preparations for its reception; the nervous system becomes exalted to a high degree of functional activity, the blood supply to these parts is increased; the endometrium, which is the soil in which the ovum

is to be implanted, becomes turgid, soft and velvety; its epithelial cells swell and multiply, and every preparation is made to nourish the welcome guest and give it a home. If, on its way, the ovum has been fructified it is ready to respond to this bountiful preparation, takes root, and grows. But if the fecundation has failed, the guest is incompetent to receive the hospitality extended and is cast off. The preparations are also eliminated; the exuberant epithelial cells are exfoliated; the delicate capillaries sweat drops of blood by diapedesis, or burst and discharge their contents; the congested and engorged glands secrete and excrete profusely, and a thin mingled mass of epithelial cells, blood and mucus comes away in the form of menstrual blood.

As a proof that some of the menstrual discharge comes from the Fallopian tubes, two cases occurring in the author's private practice were narrated. Both patients had been subjected to vaginal hysterectomy, and in each instance the ovary and tube of one side had been left *in situ*. In removing the pelvic drain during convalescence, the proximal end of the tube in each case was accidentally dragged down into the vagina and caught in the vaginal scar. These patients both menstruated every month after the operation, and the blood was seen to trickle into the vagina from the open ends of the tubes. These observations were continued for several months, and, then, in fear of the possibility of tubal pregnancy, the ends of the tubes were sealed up. Experience in these cases seemed to established, so far as such observation can, the fact that the tube, at least in the absence of the uterus, actually performs the function of menstruation.

SECOND QUARTERLY MEETING OF THE PROVINCIAL BOARD OF HEALTH OF ONTARIO.

THE Board met at the office of the Secretary, Dr. Hodgetts, at 2.30 p.m., May 4th, there being present Dr. Kitchen, St. George, Chairman, Dr. Hodgetts, Secretary, Toronto, and the following members: Dr. Cassidy and Dr. Oldright, Toronto; Dr. Boucher, Peterboro; Dr. Thompson, Strathroy; Dr. Douglas, Cobourg.

A communication from Berlin relating to the sewage of that town was referred to the Committee on Sewage.

A letter relating to the discharge of sewage into a river at Kincardine was read and referred to the same committee.

An inquiry from Peterboro elicited the reply that when premises are disinfected by the order of a local Board of Health the owner can be made to pay for the work, if he is able; if he is not able the work is done at the expense of the local Board of Health.

A decision of a high court of Ontario, by which the local Board of Health of Ridgetown was found to have been guilty of an error of judgment, instead of negligence of duty, was discussed. On motion the matter was referred to the Committee on Legislation, with instructions to report at the next quarterly meeting.

A communication about a cemetery at St. Clement's was read. The secretary was instructed to deal with this matter at an early date.

A remarkable illustration of the contagiousness of consumption was referred to in a letter received from Spencerville, Ont., stating that nine persons, members of the same family, had died of consumption in the same house, the only two who escaped being absent from home. The writer of the communication thought that this house ought to be disinfected.

A communication from Dr. Langrill, M. H. O., Hamilton, was read, complaining of the violation of sanitary laws by the local Board of Health of Barton township. Moved that the secretary notify the said local Board to appoint a medical health officer forthwith, referring them to sections 32 and 33 of the Ontario Health Act.

It was announced that the next quarterly meeting of the Board would take place at Sarnia on Wednesday and Thursday, July 13th and 14th. Dr. Logie, Secretary of the Lambton County Medical Society, had arranged for a meeting of his society in Sarnia on the same dates.

A communication was read from Dr. Macauley, M.H.O., Brockville, announcing that in that town the local Board of Health had provided diphtheria antitoxin gratis during 1903; 277 packages had been used.

In reference to Mr. Joynt's bill relating to the hygiene of barbers, Dr. Cassidy explained the action taken, and the report made by the Committee on Epidemics in providing regulations for the hygiene of barber shops. Reference was also made to the experiments in disinfection made by the bacteriologist of the Board in this connection.

A letter describing a new sewage trap made at Galt, Ont., was referred to the Committee on Sewage.

In his first report since his appointment as Secretary of the Board, Dr. Hodgetts dealt at considerable length with the tuberculosis problem, and strongly urged the Board, in view of the annual death roll from consumption of over 2,000 in the Province, to seriously consider the adoption of some system of notification and registration of all cases. Voluntary notification had been adopted in a number of English cities with most satisfactory results, and many of them were thinking of going further and

making it compulsory or systematic. The only enactments at present that made notification compulsory were the recent measure passed by the Imperial House giving Sheffield the power to put into force such a by-law, and the Quebec law providing for notification of all cases that have reached the stage of suppuration or expectoration.

The crowded home, said Dr. Hodgetts, was now and would for a long time be the only place available for the larger number of patients, and as these were the chief centres of the disease something should be done so that municipalities would be notified of all tuberculosis cases and be authorized to take preventive measures, and, if necessary, provide for the patient. The great need that exists for the erection of municipal sanatoria should, Dr. Hodgetts thought, be urged upon all local Boards of Health.

Analyzing the vital statistics for the quarter, Dr. Hodgetts commented on the marked decrease in scarlatina and smallpox, and the reduced mortality in both diseases. He called attention to the general neglect of physicians throughout the Province to report typhoid fever, although the law distinctly provided for it.

Dr. Hodgetts advocated the establishment of at least one experimental septic station at a point convenient to the Provincial laboratory. A tank, together with filtration beds, would enable the Board to assist the municipalities in solving a question of vital importance, and of untold economic value. This would require an additional monetary grant, but he was satisfied its importance outweighed any objections that could be raised on this score. This report was received and adopted.

Dr. Amyot, bacteriologist of the Board, read a report in which he stated that he had examined the water supply of Toronto, and from March 25th to April 30th, inclusive, the following intestinal bacteria were found by him in the water: Colon B five times, colonoid six times, streptococci six times. The bacterial counts were especially high on flood days. Incidentally, Dr. Amyot remarked that quite a few cases of typhoid fever were reported about the time of the experiments, whose origin could not be traced, and there was almost an epidemic of other intestinal troubles.

Dr. Amyot made a further interesting analysis of water that had been passed through an ordinary hot-water boiler attached to a range. The bacterial counts were, he said, decidedly altered for the better, the water being nearly always practically sterile, although it may not have boiled.

Reporting on an examination of various canned vegetables, fruits and jams put up in Ontario, Dr. Amyot said that none of them showed poisonous metals in harmful quantities. The cheap jams were chiefly filled with apple or turnip pulp, there being

very little of the fruit present, "simply enough to give a seed here and there throughout the mixture."

This report was received and adopted.

The Board re-assembled at 10.30 a.m., May 5th.

The Mayor of Oshawa asked permission to have the sewage of Oshawa drained by a small creek which runs through a marsh towards Lake Ontario. The Chairman of the Committee on Sewage, Dr. Oldright, reported against this request, favoring the plan which had been adopted by the Board in 1901, when this matter was laid before them by Mr. Spekeman, who was then the engineer of Oshawa. By Mr. Spekeman's plan Oshawa Creek was to receive the town sewage. Oshawa Creek has a rapid current, and would answer very well for drainage purposes. The other smaller creek, favored by the Oshawa people, is unsuitable, particularly as it is very small and runs through marshy land. If, however, a suitable sewer pipe is laid through it from the town to the lake side, the sewage of Oshawa might be discharged by the small creek. This recommendation was adopted by the Board. The Board then took up the question of the disposal of Toronto sewage, and after listening to Dr. Sheard, M.H.O., City Engineer Rust, and Ald. Geary, left the matter to its Sewage Disposal Committee.

The city representatives were anxious that the Board should endorse one scheme or the other presented, in order that the matter may be brought before the ratepayers at the earliest possible date. Mr. Rust and Dr. Sheard set forth their different views at length, as they have done several times to civic committees.

Dr. Sheard remarked that the wilful waste of water tended to add much to the cost of sewage disposal schemes. This waste poured into the sewers, and was costly at both ends. It cost to pump the water and it cost to dispose of the excessive quantity of sewage made by this waste. Steps should be taken to prevent the waste.

Dr. Cassidy, of Toronto, obtained an assurance from Dr. Sheard that the city water supply was as pure as the supply of any city of its size on the continent, and then protested against the proposition to expend such a large sum upon something that was not really necessary. He said that the island was the city's bulwark of safety. It protected the intake from the sewage. If it was not for the island the city would be in the position of Chicago, where typhoid fever epidemics were of frequent occurrence, owing to polluted water.

"The question of sewage disposal in Toronto is more an æsthetic one than one of sanitation," asserted Dr. Cassidy. "As long as we have a pure water supply there is no present necessity of interfering with our sewage disposal. The question of a supply

of water for fire purposes is much more important. I believe in improvement, but not improvement for improvement's sake. I believe in improvement from necessity. We cannot afford a new system of sewage disposal. Our tax rates are going up rapidly. We want a good supply of pure water to prevent disease, and we want a good supply of any kind of water to prevent fire. We should have the fire protection now, and the sewage can wait until we are in a financial position to look after it."

Ald. Geary took Dr. Cassidy to task for his statement. He said that a continued supply of pure water depended upon proper disposal of sewage. Any trouble they had now with the water arose from the sewage. The city could not afford to have a repetition of the typhoid fever epidemic and loss of life the municipality was visited with the time the conduit rose in the bay.

Dr. Hodgetts, the Secretary of the Board, backed up Ald. Geary.

"It is a sanitary necessity," he remarked. "What happened before may happen again, to the untold expense of the city and a serious loss of life."

Dr. Oldright supported Ald. Geary's remarks. He thanked the city representatives for the information supplied, and he trusted that some definite scheme of sewage for Toronto would be agreed upon at some early date. He therefore moved that the question be referred to the Committee on Sewage. Dr. Hodgetts seconded the motion, which was carried unanimously.

After reassembly at 2.30 p.m. a resolution was passed instructing Dr. Amyot to continue his investigations into food adulteration and the use of disinfectants.

A committee consisting of Dr. Oldright, Dr. Cassidy and Dr. Hodgetts was appointed to consult with the authorities of the University of Toronto in regard to the qualification of sanitary inspectors and the granting of degrees in public health.

Dr. Hodgetts suggested that the publication of the annual reports of the Board and of the Health Officers' Association be dropped, and that a quarterly bulletin giving a report of the proceedings of the Board and other information be substituted. The Publication Committee will take the matter up.

Dr. Cassidy read the report of the Committee on Epidemics, containing rules for the care and treatment of persons suffering from tuberculosis, and a reference to the fact that householders, physicians, and medical superintendents of hospitals neglect to report cases of typhoid fever. The Board decided to have the rules referring to tuberculosis printed in leaflet form, and distributed; and also, that a circular be issued drawing the attention of householders, physicians and medical superintendents of hospitals to the sections of the Ontario Health Act requiring them to give notification of typhoid fever.

The Board then adjourned.

J. J. C.

Selected Articles.

JAP MILITARY MEDICAL SERVICE.

BY G. S. RYERSON, M.D., TORONTO.

THE war between Japan and Russia is arousing so much interest at the present time, that it would seem a short account of the medical arrangements of the two armies might prove of interest. The succeeding remarks are founded on an excellent report by Col. William Taylor, now Surgeon-General Sir William Taylor, D.G., who was sent out by the imperial government to observe the medical service in the Chino-Japanese war of 1894.

The Japanese regiment of infantry consists of three battalions of four companies each, of a total strength of 2,400 officers and men. In each regiment there are 48 regimental bearers, distinguished by a red band worn above the elbow of the left arm. The scope of regimental medical service in action comprises medical aid in the fighting line and at the dressing stations. These stations are closed when the bearer companies begin their work. The medical officer and his assistants are employed at the front under fire at the temporary dressing stations referred to, but the Japanese regulations require the regimental medical service to keep well closed up with the fighting line, and to conform to its movements. The equipment is similar to that carried by all armies, but is very liberally supplied. The medicines are of the usual European kinds, morphia, iodoform, Hoffman's anodyne, etc.

The bearer company forms a divisional organization, consisting of a central administration and two subdivisions of three sections each, of a total strength of 416 officers and men, and fifty-one horses. There are ten medical officers and four pharmacists. This column is under the control of the division commander, who is advised by the chief of the division medical staff. Each bearer column bears the name of the division to which it belongs, and is organized so that it can at any time be divided into two equal parts. Ordinarily one half marches with the advance guard and the other half in the main body. The function of the bearer company is to act between the dressing stations and the field hospitals.

The dressing station is divided into three sections, indicated

by flags of different colors. 1. Receiving and forwarding section (blue flag). 2. Operating section (white). 3. Dressing section (red). The dressing stations are, in addition, distinguished by the Geneva Red Cross flag by day, while they are marked by red lanterns at night. The identification of patients is secured by a metal label worn by all ranks. The registry of all property is also provided for. The medical and surgical equipment of the bearer column consists of four panniers, eight reserve panniers, ninety-six stretchers and two tents, for the carriage of which thirty-six horses are allotted. The stretcher is made of bamboo with canvas bottom and movable cross pieces. Most of the land carriage of patients is done with these stretchers and the native springless carts. There does not appear to be a provision for ambulances, though I understand a large number have been ordered from a firm in the United States for the purposes of the present war.

Field Hospitals.—There are six field hospitals in each division, three are with the first line of transport and three with the second. Their function is to receive patients from the dressing stations or direct from the fighting line, to continue or complete the treatment previously received, and to be prepared for rapid evacuation should it become necessary. The *personnel* of these field hospitals for each division consists of 48 officers, 108 non-commissioned officers, 510 men and 264 horses. The quota of patients for each hospital is 200.

Transport.—Passing from the field hospitals to the rear along the lines of communication to the base, the patients are in the hands of the hospital transport corps. There is also a reserve medical staff and a reserve medical store.

The supreme medical control is vested in a field medical commander, who is chief of the medical department of the war office, and, during war, serves with the grand headquarters of the army, and with him he has a personal staff of four. The army is also supplied with hospital transports and a hospital ship. The latter has accommodation for 50 officers and 200 men (patients).

General Hospitals at the Base.—The reserve hospitals are established either within military garrisons or without, and bear the name of the locality where they are located. They have an establishment of from 42 to 70 officers and men of the hospital corps.

The Red Cross Society.—The Red Cross Society was inaugurated in 1886 and had, in 1894, since largely increased, 75,902 members, employing 1,170 medical officers, female nurses and orderlies.

The first aid dressing used is Dr. Kikuchi's straw ash pad. It consists of straw ashes, freed from grit and put in muslin bags. Applied directly to the wounds, it is said to be very absorptive and aseptic. If there is no discharge from the wound it is

applied dry, but if it discharges freely the pad is first soaked in bichloride solution.

The food of the army in time of peace consists of thirty-six ounces of rice and six cents for the purchase of chicken, beef pork, fish or vegetables, tea, pepper and miso, a kind of pea flour. That amount of money does not purchase much of these articles, but the Japanese are satisfied with a very small proportion of animal food if they can have their rice flavored with fish or "soy." The rice is boiled in bulk in large pots for each section of a company. The daily field ration consists of rice, 36 oz.; chicken, beef, pork or fish, 5 oz.; of preserved meat, 2 1-2 oz.; or dried meat, 4 oz.; with vegetables, fresh, 5 oz.; or dried vegetables, 2 oz.; spice, 1 7-8 oz.; preserved plums, 1 1-2 oz.; and salt, miso, tea, a sufficiency. The cooking is very simple. If the men were with their regiments the cooking utensils were brought up with the column, the rice was boiled in large boilers, and the preserved meat, etc., which each man carried for himself, were added by the men themselves. Each battalion carried a box containing appliances for analysis of water, and medical officers were sent on ahead to examine each proposed camping place. Each battalion also carried wooden filters. The water was, where necessary, ordered to be boiled, but this was often not carried out, as it appeared to be nobody's business to see that it was done.

Dress.—The weight of the infantry clothing and equipment, including rifle, ammunition and special ration, was fifty-six pounds, thirteen ounces. Besides the ordinary greatcoat during the cold weather, the officers and men mobilized for the war (1894) had one made of brown blanketing, with a hood and special covering for the head, concealed under the collar, and a pair of mittens of the same material as the coat. It came down to the ankles, and had a band to buckle round the waist. The men in the field had a paper shirt and a pair of drawers. In very cold weather these were worn between the usual under and over shirts and were said to be very warm. There was considerable suffering from ill-fitting shoes and canvas gaiters and cotton socks. The knapsack was faulty and pressed unduly on the chest and armpit. The material of which the tunic and trousers were made was of blue cloth with stripes of different colors to distinguish the different arms of the service.

It will be noticed that the Japanese are supplied with very liberal and adequate medical service, and Gen. Taylor speaks in glowing terms of the devotion and bravery displayed by the bearers in bringing wounded men in under fire. The free use of voluntary aid through the medium of the Red Cross Society is noticeable. I think that it is admitted that no nation maintains, even in time of war, a sufficient medical staff to meet the requirements. It will be remembered that during the late South African

war the St. John Ambulance Association supplied upwards of two thousand trained orderlies for hospital work, and that the Red Cross Society contributed more than three million dollars' worth of supplies for the sick. It is painful to think what would have been the fate of the sick and wounded without this adventitious aid. We ought in this country to develop these societies, especially the ambulance association, as a reserve for the army medical corps, for trained orderlies cannot be improvised at a moment's notice.—*Can. Lancet*.

OSBORNE HOUSE, THE KING'S GIFT TO THE NATION.

THE name of Osborne became very familiar to all the subjects of Queen Victoria owing to Her late Majesty's marked preference for Osborne House as a place of residence at certain seasons of the year. She generally spent several of the winter months there, after leaving Balmoral, and usually returned in the early summer.

Her Majesty's liking for Osborne may probably be attributed partly to its beautiful situation overlooking the Solent—one of the most frequented pieces of water in the narrow seas—partly to its mild yet bracing climate, and partly to the way in which the garden and park lent themselves to a quiet outdoor life for many hours of the day during several months of the year—a rather rare combination of attractions in this country.

The Osborne estate, which comprises about 2,000 acres, was acquired in 1845 by purchase from Lady Isabella Blachford. It occupies both sides of a gently sloping hill falling towards the north to the seashore, where a sea wall has been built to protect the park, and to the south to the River Medina. To the west the park gates open on to a broad road, which leads, in about a quarter of a mile by a rather steep incline, to East Cowes, while to the east of the estate is open cultivated country. The grassy slope between the house and the sea is picturesquely planted with trees, while further to the east the park includes a considerable extent of woodland. Immediately in front of the house are terraced gardens, while on the south side the pleasure grounds contain many beautiful trees and shrubs. Trees of all kinds, indeed, do remarkably well at Osborne, and varieties of the arbutus, and a grove of cork oak, not often seen in this country, grow vigorously. That the camellia flowers out-of-doors, and that there is a palm some thirty feet high on the terrace are evidences of a mild and equable climate. From the East Cowes entrance the house is approached through a dense avenue of well-grown ilex and cedar, planted under the direction of the late Prince Consort. There are ranges of hot-houses and a walled garden, well open to the sun, and protected from the north and east. The offices are to

the east, so that the house has, if an explanatory bull may be pardoned, two fronts—to the north-east and south-west respectively—the one to be preferred for out-of-door life in the summer and the other in spring.

In the park golf links have been laid out, and there is a small building originally erected for a summer tea-room which will serve as a club-house.

The two square towers of the house are well seen from many parts of the Isle of Wight and from the coast in the neighborhood of Portsmouth. It is an irregular building, consisting of the private apartments of Her late Majesty, of a main and a south wing connected with each other and with the pavilion by an open loggia and cross passage, and of the Durbar wing. The whole, with the exception of the Durbar wing, which was added in 1890, was built in the five years following the purchase of the estate in 1845.

Queen Victoria bequeathed this fine property to her eldest son, and His present Majesty presented the whole—the park, the house and all its appurtenances, and the farms comprised in the rest of the estate—as a free gift to the nation as a memorial to Her late Majesty. It was a kingly gift and is to be devoted to a noble purpose. The house, with the exception of the private rooms used by the late Queen, which will be kept unaltered as she left them, will be devoted to public purposes. The Durbar hall and some other ceremonial rooms with their connecting corridors will be open to the public on certain days, and will doubtless attract many visitors, for they contain a large number of interesting portraits and other mementoes of Queen Victoria's long and eventful reign. The park will be open to the public on the same days. With these exceptions the grounds and house will be given up to the purposes of a convalescent home for officers of the navy and army.

The Osborne Estate Act, 1902 (2 Edw. VII., c. 37), recited that the Osborne Estate was, under the will of the late Queen Victoria, vested in His Majesty for life, with certain remainders, and that His Majesty had, with the concurrence of the Prince of Wales, signified his pleasure that on the occasion of his coronation the Osborne Estate should be handed over so as to become part of the public property of the Sovereign, and that provision should be made for the use of the house and grounds as a memorial to Queen Victoria. The Act accordingly gave effect to this declaration, certain parts of the estate—consisting of ground adjacent to Osborne Cottage—being reserved for the private use of members of the Royal Family. Osborne House and the grounds adjacent thereto were placed under the management of the Commissioners of Works, the rest of the estate falling to the charge of the Commissioners of Woods. The Act further directed that:

"As a memorial to Her late Majesty the Commissioners of Works

(a) Shall, during His Majesty's pleasure, preserve, so far as may be in its present condition, and keep open to the public in such manner and on such terms as the Commissioners, with the approval of His Majesty, may determine, such part of Osborne House as appears to have been in the personal occupation of Her late Majesty; and

(b) Shall devote the rest of Osborne House and the grounds under their management to be used for the benefit of officers of His Majesty's naval and military forces, or their wives, widows, or family."

A Committee appointed by the King to consider the disposition of the estate had reported on December 5th, 1902, in favor of the above arrangements, recommending especially that the park and woods adjoining the sea front should not be treated as land bearing revenue; that the house, except that portion reserved by His Majesty—that is, the private apartments of the late Queen Victoria—should be appropriated to the uses of the army and navy as a convalescent home for officers, and that the stables and cricket ground should be utilized for the naval cadets of a training ship to be stationed off the Isle of Wight.

This scheme, as originally devised has, with the approval of His Majesty, undergone certain modifications, a Naval College with an accommodation for 198 cadets having been already built, and further buildings to accommodate 108 more being in the course of erection. Eventually accommodation will be provided for 378 cadets. The arrangements with regard to the naval cadets are under the control of the Admiralty. Dormitories, a recreation room, etc., for the cadets are being constructed, and the buildings occupied by them are at present maintained by the Office of Works at the expense of the Admiralty.

Osborne House has been altered and adapted for use as a convalescent home, and, as regards the State Rooms, for exhibition to the public. There will be accommodation for about fifty patients.

The selection of the convalescent patients will be referred to the Navy and Army Medical Boards. The Office of Works will be advised as to the arrangements for their accommodation by a committee consisting of Viscount Esher, K.C.B., K.C.V.O. (Chairman); Sir Francis Mowatt, G.C.B.; Sir George Murray, K.C.B.; Sir Frederick Treves, Bart., K.C.V.O., C.B.; Sir Francis H. Laking, Bart., G.C.V.O., the Hon. Sir Schomberg K. McDonnell, K.C.B., C.V.O., Colonel Sir Edward W. D. Ward, K.C.B.; and Captain the Hon. Hugh Tyrwhitt, R.N.; and Secretary, Mr. A. I. Durrant.

It may be said at once that the plan of the house has been

found to lend itself singularly to the purpose to which it is henceforth to be devoted. The structural alterations have been comparatively few, and are now complete; the internal sanitary arrangements have been reconstructed on modern principles, the decorations are now nearly finished, and the furniture will soon be in place.—*Brit. Med. Journal.*

“A NIGHT DRIVE INTO A SNOWDRIFT.”*

IN another half hour they arrived at the house. Dr. Jessop, a man of about fifty years of age, was walking up and down the long, low room, in which the patient was lying. His face bore a set, severe expression.

“Glad you’ve come, doctor,” was his greeting; but it was in a suppressed tone. “Come into this bedroom and I will tell you. This is a very bad case. Prompt amputation will be needed, for the arteries and muscles on the outside of the leg are cut right down to the bone. He has bled terribly, and there is danger of mortification. The leg is getting very black already.”

“Have you got it bandaged tightly?”

“Oh, yes! The moment we loosen the bandage at all the hemorrhage commences again. Did you bring your instruments, Dr. Hartman?”

“Yes, but perhaps amputation will not be necessary.”

“But it will. What is a limb to a life?”

By this time Dr. Hartman had divested himself of his wraps, and they went in together to examine the patient.

He was conscious, but pallid, and comparatively bloodless. The toes of the injured foot were of a purplish hue from the tight binding, while blood was still trickling through the bandages wrapped around the wound.

“Has he had any brandy?” Dr. Hartman asked.

“No,” said Dr. Jessop. “I was afraid it might increase the flow of blood.”

“Well,” said the young doctor, smiling, “I would give him a good stiff horn now; and, if you like, I will remove the wrappings and examine the leg.”

“That’s just what we want,” was the reply.

“There are too many people in this room, don’t you think?” said Dr. Hartman. “The air is close. I would keep these two men to assist, and send every one else out.”

“Exactly,” responded Dr. Jessop, “the very thing I intended to do,” and he moved about carrying out one suggestion after another, as indicated by the younger man.

* Selection from “How Hartman Won.” By Eric Bohn.

As the wraps were unfolded, the foot being held firmly by one of the men, a stream of bright arterial blood jetted out forcibly from the wound. But Hartman had placed a tourniquet loosely over the great artery of the thigh, and was prepared for it, ready to tighten and arrest the flow the moment it was needed.

"Glad you brought it," ejaculated Dr. Jessop, "I didn't have mine with me."

"How could we amputate without it?" was the quiet comment.

On examining the injured limb, a deep, almost perpendicular wound into the upper portion of the ankle joint was laid bare, severing muscles, blood-vessels, ligaments, and bone itself—almost dividing the joint into halves. It was a terrible gash, and the foot hung limp beneath it. The removal of the bandages permitted a return of venous circulation, and was a relief to the cyanosis of the foot.

"I think I would amputate as close to the joint as possible, in order to retain a useful leg," suggested Dr. Jessop, who always liked to be in at a capital operation, although he never did one himself.

"Had we not better try and retain the limb altogether?" said Dr. Hartman, while he grasped the severed end of the artery with bull-dog forceps. "Doctor, slip on this ligature, please. There, now loosen the tourniquet a little. Ah! I must tie the lower end."

"Two or three spouting vessels of smaller size exhibited themselves, to be treated like their predecessors, and then arterial hemorrhage ceased.

"If I can suture the two ends of the long peroneous muscle together, it will help the joint," said Hartman, as he examined the wound more closely.

"Possibly," said Jessop, coldly, for he was in no way pleased with the trend matters were taking.

But without delay Hartman drew down the retracted muscle and sutured it with silver wire to the exposed end in the foot. Then he washed out the wound freely with tepid water, bathed the cut surfaces with brandy, and making a drainage tube of the long ends of the sutures, stitched up the wound.

This was at a period prior to the date of antiseptics; but "cleanliness and elevation and rest," as taught by Aikens, were not unknown to the young doctor.

After the dressing was finished, at Jessop's suggestion, the two men adjourned to another room.

"That's very nicely done, young man," said the former, with some dignity; "but I tell you it's a mistake. That terrible wound, with bone and muscles and ligaments and arteries all cut

will produce fever and suppuration, and will cost the man his life; while a clean amputation, which you could easily have done, would have saved it."

"I am glad to think that you are mistaken, Dr. Jessop," replied Hartman. "I believe the wound will heal, and the man will get well, having two feet instead of one. The only thing will be to keep the fever down, and that can be done by having clear cold water drop constantly on the oiled silk over the wound, and allowing it to run away into a pail beneath. Your plan would be a good one, but the one you and I have adopted will be better."

"Well!" said Jessop, mollified a little by the implied compliment, "I am willing to follow out any further treatment you may suggest; and I sincerely hope it will be successful, for the man's sake as well as ours."

"Thank you," said Dr. Hartman; and as day dawned he started again upon his long drive home.

In due time Armstrong's leg did get well, and he drove to Linbrook to pay the doctor his fee, and to thank him for a saved limb—something which money alone could never adequately compensate him for.

THE DOCTOR IN HIS SOCIAL ASPECT.

EVERY now and again during the last two or three years we have had to contradict rumors as to the King's health which found their way into the newspapers. The latest of these reports was apparently inspired by an announcement made by the *Court Circular* that Sir Frederick Treves was a visitor at Balmoral. The fact that a circumstance of no importance in itself, and of no interest except to those immediately concerned, should give rise to such rumors suggests reflections of a not altogether pleasing character as to the light in which even the most distinguished members of the medical profession are still regarded from a social point of view in this country. We are in the habit of congratulating ourselves on our improved position; yet it is evidently deemed incredible that the sovereign should invite a surgeon who has rendered him an incalculable service to spend a few days with him as his guest simply by way of social courtesy. Nor does this particular instance by any means stand alone. We can recall several occasions in recent years, when the mere accidental proximity of an eminent physician or surgeon has been made the basis of sinister suspicions and rumors. There is surely nothing more incongruous in the presence among the King's guests of an eminent doctor than in that of an eminent lawyer. Yet His Majesty may entertain a legal luminary without giving rise to the report that he is

making his will. The fact is that the public will never allow the doctor to divest himself of his professional character. If he goes out to dinner he may be selected to take down a great lady, only to have his gratification at the honor dashed by the discovery that his fair companion wishes to be told what she is to eat and drink, and what she is to eschew. Perhaps, however, many *grandes dames de par le monde* agree with Lady Chettam in *Middlemarch* in liking a medical man who is more on a footing with the servants. It may, indeed, sometimes be as awkward to meet one's doctor at dinner as it would be for a sinner to have to entertain his father confessor. A medical man at a social gathering of his patients, if not exactly like a death's-head at the feast, must perhaps be something of a restraint. Fortunately society is large enough nowadays to give ample scope and verge enough to the busiest practitioner for the satisfaction of his social instincts without acting as a *memento mori* to those about him. It is doubtless in a large measure the fault of the doctor himself—or rather of his predecessors—that he cannot so easily throw off his professional character as men of other callings. This is a legacy of the days when the physician thought it necessary to advertise his profession by the fashion of his garments, and the tradition of the wig and gold-headed cane still clings to his successors. Now that, like a well-known Nonconformist divine, we wear no clothes to distinguish us from our fellow Christians, it is surely time that it should be known that a man may practise medicine without forfeiting his right to be treated, even by the first gentleman in the land, as a friend as well as a physician. We only plead for a more general recognition of this fact, so that a doctor may accept an invitation to a country house without causing unpleasant myths to be woven around his hosts, or attend a wedding without being suspected of a far-seeing eye to future contingencies.—*The British Medical Journal*.

A FORECAST OF RADIUM IN FICTION.

To the late novelist, Lord Lytton, is attributed the forecast of the discovery of radium. In his marvellous imaginative work, "The Coming Race," in many respects the most remarkable of his writings, the novelist gave an account of the life led by a race of human beings far down in the bowels of the earth. The distinctive feature of the book, in fact the pivot upon which the plot hinges, is the possession by these underground dwellers of a mysterious substance named *vril*, and which, as described by Lytton, is according to Hornblow, writing in *The Critic* for March, identical with radium. There is not space in these pages, nor is it needful to enter minutely into the

matter, but the aforesaid writer summarizes the similarities between radium and the substance hatched in the brain of the author as follows: "(1) Lytton says a small amount of vril could destroy a city as large as London, and that a child could destroy an army by merely pointing at it a staff charged with the substance; science assures us to-day that the power of radium is almost limitless, that two pounds of it could destroy three millions of people and that one ounce would blow up a battle ship. (2) Lytton's subterranean race lighted their streets with vril. Science tells us that radium gives out light and heat without waste or diminution. It is, therefore, only a question of quantity and proper adaptation, when the world will use radium for lighting purposes. (3) This wonderful vril of the novelist could, he claimed, cure diseases. Indeed, the race depended wholly on it to restore or invigorate life. Experiments recently made with radium in hospitals demonstrate that it will cure certain forms of disease, such as lupus and other skin diseases. It is also believed that it will cure cancer; on the other hand, if applied differently, it will burn the skin and destroy life. Physicians declare that air rendered radio-active will cure consumption, and that water rendered radio-active will relieve stomach troubles."

Could then, asks Hornblow, Lytton have been otherwise than inspired when he wrote half a century ago of vril: "It enables the physical organization to re-establish the equilibrium of its natural powers and thereby to cure itself"?

The writer in *The Critic* has taken the exaggerated views of the properties of radium, so widely disseminated by a portion of the lay press and by a certain number of the medical profession. The truth is that the properties of radium are not yet definitely known. It may be that its limits have not been gauged and that its powers are even greater than its most ardent advocates believe. But at present we are somewhat in a state of expectancy with regard to radium. True, what is known of the substance is wonderful enough, and it is to be hoped that the glowing anticipations formed in the minds of some of its eulogists as to its potency may be fully realized, and that Lytton's wonderful vril may be equalled by radium.—*New York Medical Jour.*

The Canadian Journal of Medicine and Surgery

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Editorials.

WHO SHOULD PAY FOR THE MAINTENANCE OF CONTAGIOUS DISEASE PATIENTS?

SECTION 93 of the Public Health Act, R. S. O., Cap. 248, respecting the isolation of persons infected or who have been exposed to infection, provides that the local Board of Health may isolate such a person, procuring nurses and other assistance and necessities for him at his own cost and charge, or the cost and

charge of his parents or guardians, if able to pay the same, otherwise at the cost and charge of the municipality.

It appears that the enforcement of this legislation, particularly since the period of isolation for contagious diseases has been increased, is rather severe on the working classes. Thus, for instance, according to "Regulations concerning diphtheria and scarlet fever, adopted by the Provincial Board of Health, and made an Order-in-Council, March 5th, 1903," a person who has diphtheria must be isolated for a period of not less than twenty-eight days from the onset of the disease, unless swabs from the throat and nose prove the absence of the Löffler bacilli. To confine the patient in an isolation hospital calls for an expenditure of from \$7 to \$10 a week. Should the patient be kept at home his father will be obliged to board away from home, if he wishes to continue his work. All this entails expense and there does not seem to be any means of meeting the difficulty; that is to say, providing for the safety of the community, and, at the same time, limiting the expenditure of the stricken household.

In a paper read at the meeting of the Association of Health Officers of Ontario, Peterboro, September, 1903, Dr. Hall M. H. O., Chatham, suggested a division of the expenditure between the interested individual and the municipality, the individual paying ordinary expenses, the municipality extraordinary ones. He thought that a fair division could be easily arrived at and would be mutually satisfactory. He suggested that the patient who is isolated until all danger of infection is past for the benefit of the community should not be called upon to pay all the expenses.

It seems difficult, in the first place, to apportion the share of expense belonging rightfully to a family infected with a dangerous communicable disease, e.g., diphtheria, and the community among whom the family resides. The uninfected members of the family require protection from the infected one and the community require protection from him as well. Instances are many in different places in Ontario, in which a large family has been nearly extirpated in a vain struggle to have its infected members treated at home. Brothers and sisters catch the contagion from each other, and the parents or near relatives are also attacked. Isolation is a very important step towards the safety of the

stricken family and the community, and an isolation hospital is probably the most effective means of remedying such a disaster. But, it would not be accurate to say, that isolation of the sick is done solely for the benefit of the community. The community, it is true, share in the benefits of such isolation; but the more immediate portion of the benefit reverts to the advantage of the stricken family. The other members of the family are protected from the infected one, while, at the same time, the father of the family is protected in his business, having full freedom to go to his work and earn the necessary money wherewith to pay for the keep of his sick child. Whether isolation should be carried out in marble halls or in double-walled tents is a matter of money. The principle is the same in both, and physicians of much practical knowledge and experience report that the results obtained in tents leave little to be desired.

It would be pleasing, indeed, to all people in Ontario, and gratifying to the sturdy feeling of independence, which it is our pride to maintain, if some equitable arrangement could be arrived at between the infected family and the municipal isolation hospital, by which the expenses of a patient, who has passed through the acute stage of diphtheria and is convalescing, would be reduced, in proportion as the cost of his maintenance at the hospital decreases.

So far as present information goes, however, the best that can be done is for each municipality to provide an isolation hospital of a kind and description in keeping with its means, and for parents or guardians to pay for the maintenance and treatment of their sick in it. If they are unable to do so, the cost and charge of maintenance must fall on the municipality.

J. J. C.

PROPER ETHICS OF THE NEWSPAPER.

ONE of the nostrums most extensively advertised in the newspapers at present, is Peruna. Extensive advertisement evidently pays the owners of this preparation, and it certainly pays the newspapers to publish the advertisement. We have no quarrel with the Peruna men who are doing their little possible to persuade all and sundry that the preparation they sell cures spring catarrh and brings a renewal of vital powers as surely as the

springtime brings buds and blossoms. We do object to the large advertising space occupied in the leading Canadian newspapers for the glorification of Peruna, but if it must be so, we would prefer to see some evidence of native enterprise on the part of the scribes. Why do they not give us their own experience with Peruna? Why do they treat us to pictorial embellishments showing likenesses of the leading Congressmen of America, and society belles who have derived immense returns from Peruna, when the editor could simplify the matter by giving us his *ipse dixit*? Perhaps he is sharp, however, and does not care to be exposed to the risk of being tripped up by some connoisseur near home. Perhaps he thinks that in newspaper medicine the imagination should be boldly appealed to, and that the services rendered to American celebrities by the use of Peruna ought to excite the interest of Canadian readers more quickly than prosaic statements of its healing powers drawn from the depths of his own inner consciousness. It may be, also, that the newspaper writers do not bother themselves with so small a matter, but allow the advertising agent full fling as long as he pays for his privilege.

It may well be that if the real composition of Peruna were known to the public, some of the more careful newspaper proprietors would refuse to advertise it. One Canadian newspaper has had the courage to do so, and we deem the circumstances so remarkable that we hasten to bring it to the notice of our readers. A correspondent writes to *American Medicine*, Philadelphia, April 16th, 1904, that he recently sent a private communication to one of the editors of the Montreal *Daily Witness*, asking the question: "Are you aware that Peruna, advertised in your paper, has been analysed and found to contain about 50 per cent. of bad whiskey? I ask this, knowing your interest in the cause of temperance." The correspondent writes that his question was answered in a practical and satisfactory manner, and further and better, that the Peruna advertisement, which was an extensive one, was promptly omitted in the further issues of the *Daily Witness*. He concludes by saying that "Such an instance of consistent and conscientious action on the part of a newspaper should, I think, receive some word of commendation from the medical profession."

We quite agree with the opinion of the correspondent of *American Medicine*, and feel pleasure in giving circulation to the

incident referred to in his letter. If physicians openly express a preference for newspapers in which advertisements of the Peruna type are tabooed, newspaper proprietors will cater to their wish. Besides, if the influential temperance element of Canada learn that Peruna has been analysed and found to contain about 50 per cent. of bad whiskey, they will not patronize papers which resort to such dubious advertising. Even the unlearned are aware that dyspepsia may lead to inebriety in patients who use drugs containing spirits for the relief of their symptoms.

J. J. C.

A METHODIST HOSPITAL FOR TORONTO.

IN silent respect to, and in admiration of, the progressive, religious denomination called Methodists, we say "hats off." Of creed, sect or schism as such, a medical journal has nothing to say, as we remarked recently when discussing Christian Science, not as a religion but in its relation to the treatment of disease. The lay press announced lately that a movement was on foot to erect a *Methodist* Hospital in Toronto. The inception of the idea was a provisional legacy of \$100,000, donated by a Methodist millionaire on condition that some other rich person, when unloading in order to get comfortably through the ordeal, of which the camel and the eye of the needle is the simile, should join forces and give or leave to the sick Methodists an equivalent amount. Now, the first question for medical men to ask themselves is: Is another hospital at present needed in a city of only a quarter of a million inhabitants, where, according to the Government report of 1901 nearly 9,000 patients were accommodated in the six Toronto hospitals? This census is entirely separate from any of the several private hospitals throughout the city. True, it was difficult for two months during the past winter to find hospital accommodation for patients owing to the unusual severity of the weather which caused much illness, but our oldest inhabitant tells us that for fifty years such a long, physically trying winter has not been experienced here, so we do not feel called upon to provide for an emergency which may not occur for another half century. Another question that is no doubt awaiting an answer in the minds of many physicians is: What are the particular or peculiar Methodist disease unknown to the doctors of, or un-

treated in, the hospitals at present, either flourishing or struggling along in Toronto? Again, would not this movement result in the very "reaching out and leading" and the further "splitting up" that the brainy Divines of the Protestant denominations are so deploring as a part of their church policy, and are they not even now strenuously urging Union—Union. Well, if this union does not come into effect soon, and the Methodists start a perfectly equipped little hospital of their own, might not some good Presbyterian build one for The Elect, and then a generous Baptist, not to be outdone, might give of his superfluous cash, and up would spring a Hydropath in our midst. So far so good, perhaps, but the novelty of this sort of thing would probably die out in a decade, and would these Institutions then prove self-supporting or would they be a sort of a hardship or nuisance entailed upon the generously disposed persons of their respective denominations? The letters which have recently appeared in both the religious and lay press, recommending this scheme, say that "Methodist nurses and Methodist doctors only" will be included in this proposed sacred menage. Of course, as the small boy says, "They pays their money and they takes their choice," but it seems to an ordinary mortal that the task the promoters have set themselves is not an easy one, despite the well-known strength and zeal of the denomination backing them: such bigoted zeal, if we may use the term in its mildest sense, is often great only with the strength that goes into the beginning of a new day's work. If any millionaire is gushing to give to one of the noblest causes a city affords, let us ask him to first consider those hospitals already established in our city, now fighting a good fight but often a hard one, who nevertheless reach out a welcoming hand, regardless of creed, to all afflicted ones. Perhaps the great founder of Methodism himself, whom the sculptor (in that admirable memorial in Westminster Abbey) has so skilfully chiselled in a characteristic attitude, standing, his arms outstretched and his hands outspread as in benediction over the crowd of common people assembled in the open air who hang upon his words, and we also almost think down through the years we hear him say: "The world is my parish"—perchance, he might hesitate if asked to dedicate a hospital surrounded by a high stone fence, a locked door and the key lost.

W. A. Y.

EDITORIAL NOTES.

Purity of Distilled Liquors Sold in Canada.—Bulletin No. 92 (*Distilled Liquors*), from the Laboratory of the Inland Revenue Department, Ottawa, November 25th, 1903, contains a report on 216 samples of liquors. These liquors, which were collected in various parts of the Dominion, consisted of the following:

Rye Whiskey	91	Samples
White "	30	"
Scotch "	24	"
Irish "	2	"
Gin	27	"
Rum	12	"
Brandy	30	"
		216

No deleterious substances were found in any of these samples. Special examination was made for alkaloids in all whiskey samples having less than 75 per cent. proof strength. A negative result was obtained in every case. The principal adulterant found was water. The liquors most tampered with are those which are most in demand, viz., whiskey (rye and malt) and gin. In the subjoined table a comparison is made of the results obtained by the same analyst (A. McGill) in 1891 and 1903:

KIND OF LIQUOR.	COLLECTION OF 1903.			COLLECTION OF 1891.		
	Number Examined.	Above Standard.	Below Standard.	Number Examined.	Above Standard.	Below Standard.
Rye Whiskey.....	91	27.5	72.5	61	23.0	77.0
White "	30	17.0	83.0	33	12.0	88.0
Scotch "	24	92.0	8.0	22	77.0	23.0
Irish "	2	100.0	0.0	10	80.0	20.0
Gin.....	27	70.0	30.0	19	100.0	0.0
Rum	12	92.0	8.0	13	86.0	14.0
Brandy	30	83.0	17.0	24	84.0	16.0

Mr. McGill goes on to say: "Except in the case of gin and brandy the above comparison shows a decided improvement in the quality of those spirits in the interval of twelve years. Gin shows a noteworthy falling off in spirit strength. I may add that the furfural test, and the production of a distinct turbidity (opalescence) on addition of water to the distillate, are the chief

means we possess for discriminating between a liquor which has been produced by direct distillation from the "mash," and one which has been manufactured by reducing rectified spirit with water to the desired strength, and further addition of flavoring or coloring matter. Scotch and Irish whiskies, gin, rum and brandy are liquors of the first type (sometimes spoken of as pot-still spirits). Rye whiskey and white whiskey (malt whiskey) are usually manufactured from rectified spirits."

The Laws of the Formation of the Sexes.—Dr. Guiard (*Concours Medical*) believes that on the third day after menstruation the ovule of the menstruating woman changes from the feminine to the masculine phase. He thinks that, as a general rule, fecundation which takes place four or five days before menstruation, or during menstruation, or on the two consecutive days will engender a girl and, on the contrary, a boy when it occurs between the fourth and the tenth or twelfth day after its close. The product of a precocious conception, according to this rule, should be of the feminine gender; that of a tardy conception of the masculine gender. Two cases are given as proofs of the correctness of this rule. A lady consulted Dr. Zychon in February, 1903. Her menses had been stopped for five months and she was pregnant. Dr. Zychon informed her of the fact, and that she would probably be confined of a girl. The ordinary duration of her menstrual flow was eight days. Her menstrual period began on September 5th, 1902, and on the 8th the lady had been raped. Coitus had been perfectly finished. The fecundating connection had taken place on the third day of menstruation. The ovum was still in the initial or feminine phase of its evolution. Logically, according to Thury's law, it ought to engender a girl, which proved to be the case. In a second case the woman's last menstrual period had begun October 25th, 1902, and ended November 1st. Her husband, who was detained at a distance by his business, returned home November 7th, and had connection with his wife. He left home immediately afterwards. The wife's menses did not reappear, and pregnancy followed. According to the date of the fecundating congress in relation to the menstrual epoch, Dr. Zychon announced the advent of a boy for August, 1903. The event confirmed the doctor's opinion on August 15th, 1903.

The Transmission of Diphtheria by Water.—The question of the transmissibility of diphtheria by water has frequently been raised in connection with epidemics, the sudden appearance of which, in the absence of the usual channels of contagion, appeared to incriminate the water. Heretofore medical authors who have paid attention to this subject have invariably concluded that such a method of contagion was out of the question. Drs. F. Seiler and W. deStoutz are of a different opinion, and their report, which appears in *La Revue Medicale de la Suisse Romande*, closes with the conclusion that potable water may occasion the transmission and propagation of diphtheria. These experimenters sowed a pure culture of the Löffler bacillus in from three to fifteen litres of ordinary water, causing a more or less uniform distribution of the bacilli by stirring the water and keeping it for over twenty-four hours at a temperature of 64-2-5 F. On the next day and the day after, they took a drop of this water and sowed it on serum. The result of their experiments went to show that during ten days at least the Löffler bacillus remained alive in the water, and that at first it even seemed to thrive in it in a very marked manner. Hence the Löffler bacillus may be diffused in potable water and the propagation of diphtheria by drinking water is not by any means impossible.

The Origin of Sugar of Milk.—In a report to the Academy of Sciences, Paris, April 5th, 1904, Dr. Porcher says: Assuming, as Paul Bert and Schutzenberger have demonstrated, that mammary tissue does not contain a lactogenic substance capable of supplying sugar of milk by hydrolysis, in order to explain the origin of sugar of milk we must admit one of the two following hypotheses: (1) Either the mammae receive fully prepared sugar of milk, which they are only required to filter; (2) or the mammae receive an excess of a different sugar, probably glucose, which they first change into sugar of milk, and subsequently eliminate. Dr. Porcher, to verify the second, made the following experiment: He amputated the breasts of she-goats and afterwards sent them to the male. His experiments showed that, of those animals which were deprived of mammae, glucose appeared in the urine after delivery. On the contrary, if these glands had not been removed, sugar of milk appeared in the milk. Consequently it appears to be an established fact that mammary

tissue is, when in a state of activity, an agent for changing glucose which is brought to it by the circulation into sugar of milk, which is later on excreted.

Should a Consumptive be Allowed to Attend School?—

It is quite true that a consumptive scholar, if permitted to attend school, might take precautions which are simple enough in themselves, although constant supervision would be required in order to make them effective. It would be impossible, however, for the consumptive to dispose of his sputa without betraying the nature of his disease; with the result that he would soon be shunned. While it is possible for a consumptive to attend school with practically no danger to others, there are good reasons for keeping such a person out of school. The disease may be cured in its early stages by the "fresh air" treatment with proper attention to food, clothing, and exercise. This treatment may be carried out in any climate. A consumptive shut up in a school room would not have much chance for recovery. It would be far better, therefore, for him to cease attending school and devote himself exclusively to the recovery of health.

J. J. C.

PERSONALS.

Dr. F. N. G. STARR spent ten days last month in Truro and New Glasgow, N.S., and St. John, N.B.

Dr. AND Mrs. J. F. W. ROSS returned to Toronto a month ago, after spending a most enjoyable three months on the Mediterranean.

Dr. F. C. NEAL and Dr. N. Buchanan, honor graduates of the University of Toronto Medical Faculty, have completed their courses for the degrees of L.R.C.P. (London), and M.R.C.S. (England). They will spend some time on the continent before returning.

Dr. WATSON P. CHAMBERLAIN has been appointed an associate coroner for the city of Toronto. Similar commissions as associate coroners have been granted to Dr. N. J. Amyot, Rochester, for Essex; Dr. J. H. Bull, Holland Centre, for Grey; and Dr. C. F. McPherson, Prescott, for Leeds and Grenville.

Correspondence.

The Editor cannot hold himself responsible for any views expressed in this Department.

MUNICIPAL SANITARIUM—TORONTO NEEDS ONE.

To the Editor of THE CANADIAN JOURNAL OF MEDICINE AND SURGERY:

DEAR SIR,—I have been frequently asked this question: Is there need of a municipal sanitarium exclusively for our citizens suffering from consumption? Unhesitatingly, I answer, Yes!

The sanitarium at Muskoka is only for cases in the early stages of the disease, and is open to patients from all parts of the Dominion, and, therefore, has only limited room for Toronto; and, secondly, it is too far away to attract our consumptives in any considerable numbers, and thus inadequate to meet the needs of this city.

The so-called Toronto Free Hospital for Consumptives in the advanced stages of the disease (near Weston), and open to all Canadians, is, no doubt, an attractive card for securing subscriptions from all parts of the Dominion.

In this city there are continuously at least 600 persons in the advanced stages of the disease; in this province about 5,000, and in the Dominion not less than 15,000.

Now, it is reasonable to believe that from the extensive advertising that is being done, at least 5 per cent. of these 15,000 may direct their faces towards this city; and that upon their arrival at said hospital will find the fifty to one hundred beds all occupied, and realize that they are within a ten-cent car fare of a great city whose name had been used to attract them.

Thus year after year consumptives from all parts of the Dominion will be dumped into this city and become an intolerable nuisance, instead of being cared for in a sanitarium in their own county municipality.

In 1897 a meeting was held at Calgary, Alberta, to take steps to inform the citizens of the Dominion that the Territory of Alberta was a favored place for consumptives. The news spread and many consumptives turned their faces towards Alberta.

Dr. Lafferty, of Calgary, who had favored this movement, in addressing the Canadian Medical Association at Winnipeg in 1901, warned the medical men of the East not to send their consumptives to Alberta, as there was no sanitarium accommodation, that the hospitals, hotels and boarding-houses would not take them in, and that their condition was deplorable.

This, together with the experience of Colorado, California and other States, should be warning enough to our citizens.

The burning question in Toronto to-day is, Shall our citizens contribute \$25,000 so as to take advantage of the \$50,000 voted by the ratepayers and of the Government aid of \$4,000 for land and buildings and \$1.50 a week for each patient and establish a municipal sanitarium under the Act exclusively for our citizens suffering from consumption, or shall this city become the dumping place of the whole Dominion for advanced cases of this disease?

E. J. BARRICK.

"INTERNAL MEDICATION FOR DIRECT REMEDIAL EFFECTS."

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To the Editor of THE CANADIAN JOURNAL OF MEDICINE AND SURGERY:

DEAR SIR,—You were bold enough to publish in your February issue my paper, read at the Canadian Medical Association in August last. But a few years ago you would have been pilloried for doing so, but, thank God, there are many in our ranks to-day satisfied to try to be physicians merely, who are glad to glean genuine remedial measures from any and every source. The only discordant note in letters sent me thus far is a kindly criticism from a homeopath, strong in his own faith, for which I admire him; whose letter I enclose, having his permission to send it you with my comments. Since one and all consented to bow to a homeopath as the president of the Council, and consequent head of the profession in Ontario, it has seemed to me both regulars and homeopaths have been stultifying themselves by refusing to thoroughly investigate each other's claims. Notwithstanding the somewhat harsh reception an attempt of mine in that direction received from Dr. J. H. Richardson, in the Ontario Medical Association, some years ago, I would, with your permission, like to point out wherein my critic's position seems illogical and untenable, in the hope that a free and kindly discussion may be precipitated for the common good. In his claim as to what *he himself* would do, he is hardly fair, because holding degrees in arts and medicine from Toronto University, he is not in the same class with the rank and file of homeopathic practitioners throughout the world whose course under given circumstances I was trying to depict.

As to priority in the use of dioscorea, while of minor importance, I would point out that Hughes in his "Manual of Pharmacodynamics" (1886) says: "Dioscorea is a medicine for one disease—a form of colic." This has hitherto been described by the American "Eclectics," to whom we owe the drug, etc. If my claim for the former's priority in its use was wrong, I regret it.

As to the dose of dioscorea, my critic says: "If you read Hahnemann's 'Organon,' the fundamental text of the science, you will learn that the proper *dose* is described, in effect, as the smallest which will do the curative work, whether it be the thirtieth dilution, drop doses of the tincture, or thirty drops of the same. The choice of the remedy is the paramount, nay, the *necessary* consideration." Knowing that the *British Journal of Homeopathy* for April, 1878, said: "In the discussions about dose, which from time to time arise in the School of Hahnemann, the practice of the master is frequently cited by either side, and statements made on the point by one party are frequently contradicted by the other, so," as in my case, "the would-be learner is left in confusion." It would have surprised me had my statement not been questioned.

But referring to the edition of the "Organon," published in 1833, near the close of Hahnemann's career, we find that: "It holds good, and will continue to hold good, as a homeopathic maxim *not to be refuted by any experience in the world*, that the best dose of the properly selected remedy is always the very smallest one, in one of the high dynamizations (x)" which last is his sign for the 30th.

His most important criticism is contained in: "We do not, as you have done in your article, draw a deduction as to the inhibition or stimulation of certain plexuses by any given drug; a mental process open to any human error.

"We do on the other hand consider that the proving of that drug on the healthy gives voice in an indisputable manner to its action on the organism. We take the stand that the collective observable signs and symptoms, as gathered from a number of provers of the drug, constitute a set of incontrovertible facts; similarly that the symptoms of the sick, their conditions of amelioration and aggravation, constitute another set of facts, and, further, that if these two sets of facts are set over against one another in the proper manner, if the symptoms of the diseased organism are accurately matched by the pathogenesis of a certain remedy, and that remedy administered, we bring the case within the sphere of action of the natural law, '*similia similibus curantur*.'"

I would submit that the many mental processes necessary to select the homeopathic remedy by the above method opens a *number* of doors to human error, instead of the *one* opened by my deductive method; if not, I must plead, that my inexperience has warped my judgment. The great error in homeopathy is the absolute refusal to use anything for the relief and cure of disease, except minute doses of drugs. Notwithstanding, I believe that the curative effects of homeopathic drugs in minute doses frequently cannot

be equalled, and while I have been using some of them for years, and am still using them in my practice, it will be a long time before I discard the high enema for the 1,000th of a grain of plumbi acetat in a loaded ascending or transverse colon. Yours, etc.,

GEO. M. AYLESWORTH, Collingwood.

[The following letter was received by Dr. Aylesworth after the publication of his article in the February issue:]

Dr. Aylesworth, Collingwood.

DEAR DOCTOR,—Your very interesting and excellent paper, appearing in the February number of the CANADIAN JOURNAL OF MEDICINE AND SURGERY, was read with much pleasure.

Your choice of a symptom to illustrate your idea is very happy. Permit me, as a practicing homeopath, to offer a criticism.

I quite agree with you in the first place that the exhibition of opium derivatives to overpower and deaden the pain is unscientific, and that such a course cannot take rank as illustrating the curative power of medicine.

When, however, you come to the discussion of the specific curative action of certain remedies and make some statements concerning what an eclectic or a homeopath would do, I feel that I am justified in taking issue with you, and endeavoring to set you right.

To say that I give colocynth in a case of colic because that drug causes in the healthy a peculiar colic, is true. But, to state further, that in the event of this remedy failing I would give dioscorea or any other drug because the eclectic sometimes cures colic with it, is far from the real practice of a Hahnemannian. Personally the identification of the use of dioscorea with the eclectics is news to me.

However, permit me to assure you that, to the properly-trained homeopath, the colocynth colic, the dioscorea colic, the chamomile colic, the plumbum, the magnesium phosphate, the Ignatia colic, are all as distinct and as sharply differentiated, by qualifying or concomitant symptomatology, as are the features in the photographs of a group of old friends.

It may be true that the lazy, or the badly, or imperfectly trained homeopath may do as you say, and, perhaps, cover his ignorance or his indifference by a dose of morphia, but he is not practicing homeopathy.

Further, concerning your remark about the dose of dioscorea. If you read Hahnemann's "Organon," the fundamental text of the science, you will learn that the proper *dose* is described in effect, as the smallest which will do the curative work, whether it be the 30th dilution, drop doses of the tincture, or 30 drops of

the same, the choice of the remedy is the paramount, nay, the *necessary* consideration. I believe, though, that in most cases, if the remedy be accurately chosen the dose required, will, by reason of the drug relationship, be generally minute.

To close my remarks I would reiterate that to give colocynth in a dioscorea case, or *vice versa*, displays either a distaste for the work necessary to accurate prescribing, or an ignorance such as no freshmen in the college from which I graduated, Hering Homeopathic College, of Chicago, would be guilty.

We do not, as you have done in your article, draw a deduction as to the inhibition or stimulation of certain plexuses by any given drug; a mental process open to human error.

We do, on the other hand, consider that the proving of that drug on the healthy gives voice in an indisputable manner to its action on the organism.

We take the stand that the collective observable signs and symptoms as gathered from a number of provers of the drug constitute a set of incontrovertible facts; similarly that the symptoms of the sick, their condition of amelioration and aggravation, constitute another set of facts; and, further, that if these two sets of facts are set over against one another in the proper manner, if the symptoms of the diseased organism are accurately matched by the pathogenesis of a certain remedy, and that remedy administered, we bring the case within the sphere of action of the natural law, "*similia similibus curantur*," the colocynth to the colocynth case, and the dioscorea to its peculiar type, the least necessary dosage to effect cure.

I am, my dear doctor, wishing you a free discussion,

Yours very truly,

A. E. WICKINS, B.A., M.B. (Tor.)

136 James Street, Hamilton.

MR. C. H. MORTIMORE, who has had extensive experience as male nurse in several hospitals in England, and bears the best of testimonials from men high in the profession there, recently arrived in Toronto, and has taken apartments at 84 Wellesley Street, Toronto. Mr. Mortimore is anxious to introduce himself and his methods to the medical practitioners in this city, and will appreciate any opportunity extended to him. Mr. Mortimer is not only male nurse, but a masseur as well, and is prepared to take any kind of case at current fees.

News of the Month.

THE ONTARIO MEDICAL ASSOCIATION.

Two weeks more will bring to us the twenty-fourth annual meeting of the Ontario Medical Association. Under the presidency of Dr. J. F. W. Ross, and with Dr. A. A. Macdonald and Dr. Allan Baines as the respective chairmen of the committees on Papers and on Arrangements, the success of the meeting is already practically assured.

The sessions will be carried on during three days, the 14th, 15th and 16th inst.

An outline of the provisional programme includes the following list of papers:

Prophylaxis of Diabetic Coma, Dr. John Caven, Toronto.

Uncertainties of Diagnosis and the Necessity of Early and Vigorous Treatment of Diphtheria, Dr. McMahon, Toronto.

Anemias More than Ordinarily Severe, Dr. Frank Trebilcock, Emmiskillen.

Modified Smallpox, Dr. Charles Hodgetts, Toronto.

Electro-Therapeutics, Dr. Lipsey, St. Thomas.

Functional Heart Murmurs, Dr. Rudolf, Toronto.

A Case of Landry's Paralysis, Dr. Hugh McColl, Milton.

Inflammation of the Laryngeal Apparatus, Dr. G. H. Burnham, Toronto.

A Discussion of the Subject of Life Insurance, from the Standpoint of the Expectancy of Life in Conditions of the Various Systems, to be participated in by Dr. E. Ryan, Kingston; Dr. R. J. Dwyer, Toronto; Dr. H. R. Frank, Brantford; Dr. B. L. Riordan, Toronto, and, it is hoped, two physicians associated with large insurance companies in Canada.

A Restatement of the Attitude of the Profession toward Placenta Previa, Dr. Mellwraith, Toronto.

Myxomatous Degeneration of the Chorionic Villi, Dr. C. J. Hastings, Toronto.

Occipito-Posterior Positions in Obstetric Practice, Dr. A. A. Macdonald, Toronto.

Anomalies in Fetal Development, with Exhibition of Specimens and Descriptions of Cases, Dr. J. Peters, Hamilton, and Dr. F. J. R. Forster, Caistorville.

Clinic Upon Diseases of the Skin, Drs. McPhedran and H. B. Anderson, Toronto.

An Exhibition of the Methods of Intestinal Anastomosis, Dealing Especially with the Elastic Ligature, Dr. N. A. Powell, Toronto.

Etiology, Symptoms and Pathology of Tumors of the Prostate Gland, Dr. F. W. Marlow, Toronto.

Surgical Relief of Tumors of the Prostate Gland, Dr. G. A. Bingham, Toronto.

Lithotomy *versus* Lithotrity, Dr. Chas. B. Shuttleworth, Toronto.

Thiersch's Method of Skin-Grafting, Dr. Primrose, Toronto.

Report of a Case of Congenital Dislocation of Both Hips, Treated by Lorenz Method, and Exhibition of Photos, Skiagraphs and of Patient, Dr. H. P. H. Galloway, Toronto.

Some Cases Illustrating Difficulties of Differential Diagnosis and Treatment of Tumors, Dr. Wm. Oldwright, Toronto.

Of the distinguished visitors who are to be present, Sir Frederick Borden will discuss "The Evolution of the Medical Department of the Militia of Canada and the Possibilities of Its Future Development."

Sir William Hingston, a paper dealing with the subject of "Cancer."

Papers are promised by the following gentlemen, but the titles are not yet known: Dr. H. A. Bruce, Toronto; Dr. Hodge, London; Dr. Perry Goldsmith, Belleville; Dr. Elliott, Gravenhurst.

The Committee hopes to announce presently as guests of the Association the names of two of the foremost men in the United States.

A very pleasant feature of the meeting will be the tenth class reunion of 1894, Toronto University, under the presidency of Dr. W. J. McCallum. Between thirty and forty men already have signified their intention of coming to the city that they may conjointly meet as a class and attend the sessions. The yearly meeting of the Association ought to serve as a nucleus for many reunions.

The Committee on Arrangements, notwithstanding the success attending the meeting of last year, promises a programme of entertainment that will be in keeping with the larger interest exhibited in the forthcoming meeting of this year. We want every medical man in the Province that can get away from duty to be present.

The fusion of collegiate interests into one grand college, one of the largest on the continent, offers a special setting for the meeting of this year. Additional interest is due to the fact that the meetings will be held in the new medical buildings, where an opportunity will be available of seeing what has been accomplished in the advancement of medical education in the Province.

RUSSIA'S POLICE DISSOLVE THE MEDICAL CONGRESS.

THE following appeared in the London *Lancet*, and, on that account, we take it as correct:

"The Russian Medical Congress, which met at St. Petersburg at the end of January, has been dissolved by the police. In Western Europe it will seem extraordinary that a technical and scientific congress cannot be held without police interference. On the other hand, it is easy to see how in Russia such things may happen. The practice of medicine there is not independent of politics, and, when questions of sanitation or of the prevention of disease are approached, science is at once forced into the political arena. . . . At the St. Petersburg congress a joint meeting was held of the sections on tuberculosis and on social hygiene. Here a motion was carried setting forth that the ignorance of the ordinary and elementary laws of hygiene, and the excessive drinking of alcohol, created the predisposing causes that facilitated the spread of tuberculosis, which is one of the most fatal of prevailing diseases. So far so good, but the motion and the speeches by which it was supported went a step further, for a clause was ultimately adopted to the effect that a regular and systematic campaign against tuberculosis could only be carried out in Russia on condition that personal freedom and the freedom of speech of the press and the meeting was granted. . . . The adoption of such a motion might be construed as an act of aggression against the Government, and therefore justified the dissolution of the congress. The resolution practically asks for complete freedom, and this is not necessary when it is simply a question of teaching the ignorant masses the advantages of cleanliness, of thorough ventilation and of abstinence from excessive drinking. Unfortunately these arguments, however plausible from the point of view taken by the present autocratic Government, do not in practice cover the issue. Such freedom as that suggested does exist. It is possible to deliver lectures on ventilation or on the best means of keeping dwellings clean, but whenever any systematic effort of this sort is made the organizers immediately fall under the suspicion of the police. These benevolent and charitable endeavors are ascribed to some political motive, and a scientific lecture on sanitation may land its author in Siberia.

"Worse than this, however, was to follow. The medical men had not only the audacity to demand that their freedom to teach the laws of health should be absolutely guaranteed, but they actually touched upon the burning question of the treatment of the Jews. The medical profession is called upon to bring its science to bear so as to reduce the prevalence of tuberculosis, and it answers, in no uncertain or faltering voice, that overcrowding and

poverty are the principal culture-beds of Koch's bacillus. But the Russian Government, by its anti-Semitic enactments, has increased to an enormous extent the overcrowding of the ghettos and the poverty that prevails therein. There are supposed to be rather more than 5,000,000 Jews in Russia, who, with but few exceptions, are confined in certain portions of the towns within only a part of the empire. By the 'Laws of May,' which the Emperor Alexander III. signed on May 3rd, 1892, the Jews were no longer allowed to reside in villages, but only in towns or burgs. The police were apparently left to decide whether a place was a village or a burg. If they chose to call it a village, then the Jews might be driven out in twenty-four hours. Thus, for instance, in 1895, all the burgs of the provinces of Poltava and Tchernigoff were declared to be villages, and the Jews had to leave in twenty-four hours. The results of this unnecessary haste are appalling. . . . The Vice-Governor of Kishneff lately gave orders for the evacuation of a burg which was henceforth to be qualified as a village. The subordinate who lived on the spot immediately requested that this rigorous measure might be deferred, as a severe epidemic of small-pox prevailed at that time. This very natural protest was, however, unavailing. The Jews were all forced out of their houses, and, whether ill or in good health, they were crowded together into carts and driven into Kishneff. It was mid-winter. Many of the children died on the road, and the epidemic of small-pox was introduced into the town of Kishneff. The question with regard to the Jews may be a political matter, but it has also a very serious effect on the public health. It is estimated that since the 'Laws of May' more than 600,000 Jews have been driven out of places now called villages, and compelled to increase the overcrowding of the ghettos of the towns. Is it surprising if, in the face of such facts, the Russian Medical Congress should adopt a motion calling attention to the danger resulting from an artificial concentration of the Jewish population in the authorized zone of residence established for the Jews in the towns and burgs of the south and west of Russia?

"Then there are laws which forbid the Jews to bathe in lakes or rivers, nor are they allowed to go to seaside watering-places, to sanitariums or to mineral wells. The congress, therefore, passed a motion demanding that patients, even if they are Jews, should be allowed to seek the benefit of the country air and 'be permitted to inhabit the country or to follow a cure at a sanitarium or a watering-place, and the congress considers that it is indispensable to grant the Jews the right to go from place to place.' At present a Jew may not live in the more healthy or suburban parts of his town, but must inhabit the ghetto. How-

ever ill he may be, and though his life might be saved by a change of air, still he must remain in his ghetto. If he desires to seek the advice of a medical practitioner who lives in some other town, he cannot do so unless he first obtains a special authorization from the police. In such circumstances it is not surprising that the death-rates in these towns are high, and that epidemic diseases have become endemic in many of the ghettos. Yet, when the medical practitioners of Russia are in congress assembled, and very naturally protest against such obvious causes of disease, they are accused of dabbling in politics, and the congress is dissolved by the police. It will be fortunate if this is not followed by the arrest and imprisonment of some of the more earnest speakers. But how medical science and sanitation can progress under such conditions is a question which the Russian Government must be left to answer."

COURTSHIP AND MARRIAGE AMONG THE AMPHIBIANS.

THOSE with a thirst for knowledge, and those with a sense of humor, were alike entertained by the clever lecture delivered by Dr. Hans Gadow, of Cambridge University, England, in the biological department of the Toronto University on April 20th. Not only does Dr. Gadow represent one of the two greatest of English universities, but several German ones. Indeed, as his slight accent betrays, he is by birth a German, though now to all intents and purposes an Englishman. Dr. Gadow is an elderly gentleman, with a sturdy frame, and the bronzed, healthy face of one who has travelled much. He has won fame as an ornithologist. "This is one of the ponderous tomes he has written upon the anatomy of birds," said Prof. Ramsay Wright, in introducing him, and he held up an imposing looking volume. Dr. Gadow is not only a laboratory naturalist, but an outdoor observer, and he is about to make what will be his second trip to Mexico, to explore some of the "specimens" in the way of frogs, toads, and other gentry of a like nature.

The doctor began by trying to get his audience to appreciate what a talented little fellow is the newt, and how nicely Mr. and Mrs. Newt look after their little newtlets. When the lady newt is about to increase the newt population, she comes out in her Sunday best, and puts on all the colors of the rainbow, not to speak of a perky little crest, all the way down her back. Dr. Gadow has been snap-shooting young Master Newt and Miss Newt in a quiet flirtation by a secluded pond—"standing looking towards each other, and vibrating with their tails," as he expressed it. "Quite a number of your American newts have peculiar habits," he informed his audience.

Next came frogs and toads. When frogs make the shades of eve discordant with their croaks, the audience were given to understand that the lady frog was laying her eggs. This is a great business, for in some cases a single frau frog will lay a mass of eggs as big as a man's head, while the lady toad, going to work on a slightly different plan, will produce a string of nice new-laid eggs ten feet long.

But your frog is a sad, careless fellow. At least, his wife is. She pays no regard at all to where she lays her eggs, and ten to one she will go and leave them in a ditch that dries up in a few days. They should learn a lesson from toads. The toad is a careful fellow, who understands the weather, and if he lets his wife lay her eggs in a ditch you can "bet your life"—to use a colloquialism—that the ditch will not dry up.

Dr. Gadow told a story to show the immense frog population in some places. He and a friend were one Sunday afternoon in a Mexican savannah, or forest, when they "heard a noise like two or three saw mills rasping at full speed together." They went through a belt of trees, and there, on a large grassy expanse, saw a stretch of about an acre in extent, covered to a depth of two or three inches in water, from which came such a row that they could not hear themselves shout. It was a grand match-making meet of Mexican tree-frogs. The frogs that had got ladies with them were happy enough but the bachelors were sitting on their haunches, each giving one great bellow. As for the numbers of the frogs, Dr. Gadow and his friend calculated that there were about 350 to a square yard all over the acre, while on every blade of the long grass were eggs. As each frog lays about 10,000 eggs, the result of an acre can be worked out. But here comes in the frog's shocking neglect. The very next day the sun came out hot, and all that acre was dried up, "and all those eggs wasted," as Dr. Gadow puts it.

In Southwestern Europe there is a fellow called the bell-toad. When the female has laid the eggs, the industrious husband pushes them into a hole, and sits and sings about them all day, and at night takes them all out for a little trundle through the nice moist grass. When the proper time comes he pushes them down to a pond for the tadpoles to come out—"and then he no longer takes any interest in them."

Dr. Gadow showed quite a number of photographs of philomedusa, or tree toads. They were not handsome, being generally suggestive of nightmares and Chinese josses.

In Brazil there is a fraudulent frog called by the Portuguese *O Ferreiro*, or the smith. According to what Dr. Gadow says of him, he should rather be called A Ferreira, for it is Mrs. Smith who seems to do all the work. The frog builds up with his hands

little mud-houses above the level of the water, to lay its eggs in. At least the lady frog does. Her husband meantime sits like a philosopher and looks on. The unhappy bachelor frogs, who have no one to work for them, sit around the pond and make doleful noises at the married ones.

The moral of it all is, thinks Dr. Gadow, that even among these lowest of the vertebrates, there is already the dawning of a psychological development to be observed in the care with which they provide beforehand for the needs of their offspring.—*News, Toronto.*

THE TORONTO ISOLATION HOSPITAL NEW WING.

WITH the opening of the new wing of the Toronto Isolation Hospital last month the city comes into possession of a most complete and up-to-date hospital for infectious diseases, which will be equal to all requirements for twenty years to come. The new wing more than doubles the present hospital accommodation; it is conceived according to the best modern designs; it is finished throughout in most thorough manner, both as to materials and workmanship, and the total cost is some \$2,000 less than the appropriation set aside by Council. This latter fact speaks volumes as to the careful attention to details and the executive ability of the Medical Health Officer, Dr. Sheard, under whose supervision the building has been erected.

The opening ceremonies were marked by a visit of inspection of a number of the City Council and members of the medical profession, who were the guests of the local Board of Health for the afternoon. Piloted by Dr. Sheard, they were shown over the building from top to bottom, and many encomiums were passed on the way the designs of Architect Harper had been carried out. Dr. Sheard explained that the new wing would be used for scarlet fever cases only, the north wing being reserved for diphtheria cases.

After the tour of inspection the guests were treated to a collation, served in one of the general wards on the ground floor. The chairman of the Board of Health, Ald. Dr. Harrison, was the master of ceremonies, and announced toasts to the King, the Medical Profession, and the Provincial Board of Health, the City Council and the Press.

Dr. Reeve, in responding to the second toast, took occasion to pay a high tribute to the ability of Dr. Sheard as a medical man, and as an unusually efficient officer. He noted the "backbone" which Dr. Sheard had always shown in the administration of his department, and in effecting important reforms therein.

Dr. Cassidy of the Provincial Board of Health added his quota of eulogy of Dr. Sheard. Referring to the beautiful building, the opening of which they were celebrating, he illustrated the advance made in isolation in Toronto by narrating an incident which had occurred in the old days in the city, when smallpox patients were treated in the General Hospital, and the other patients exposed to infection in a manner that would now raise a universal storm of protest. Prevention had gone so far now that many persons grew up without contracting the ordinary diseases of children, such as measles, and to that fact he attributed such epidemics as prevailed now in New York. However, he did not think we should on that account condemn or oppose preventive medicine.

Dr. Hodgetts, Secretary of the Provincial Board, suggested that the building be thrown open for the inspection of the general public, in order that the prejudice against hospitals in some minds might be dispelled, and that the mothers of the city might see that their children could be more safely and more comfortably treated here than at home.

Controller Hubbard, Ald. Woods, Fleming, Foster, Graham and Crane, and ex-Aldermen Saunders, Bell and Lynd also spoke briefly. They all paid glowing tributes to the worth of Dr. Sheard as a municipal officer.

Dr. Sheard expressed his warm thanks for the compliments paid him and declared that his best reward of service lay in the good-will and endorsement of the Council. He noted that in his twelve years of office members of the Council had only approached him five times to ask for appointments of their nominees for positions in his department. Four of these applications had been made during the first three months in office. He took justifiable pride in the fact that the new wing had been completed for \$32,000, although the Council had appropriated \$34,000. It would accommodate 100 patients, had better conveniences than the north wing, which would only accommodate 80 patients, but which had cost \$3,000 more to build, though building materials had been considerably cheaper when it was erected. He also paid a high tribute to the conduct of the hospital under the matron, Miss Matheson. Nurses who graduated from the hospital were in great demand in the hospitals of New York and Philadelphia.

WHEN YOUR CASE IS WEAK ABUSE THE OTHER SIDE.

THIS maxim has been a favorite standby with the legal profession from time immemorial, and unfortunately certain pharmaceutical manufacturers have recently seen fit to make use of

that maxim. This is particularly true of the manufacturers of a certain iron preparation.

The impudence and effrontery with which these people try to hoodwink the medical profession is rather remarkable.

No other preparation ever came before the medical practitioner with so little detail as to methods of preparation, composition, therapeutic effect, etc., etc., and nevertheless the profession is asked to accept the wildest and most extravagant statements as to its wonder-working capabilities. This is not all. The makers of this preparation, in seeking the support of the profession, covertly attack and sling mud at all other iron preparations that have been before the profession for years. They single out Pepto-Mangan, a combination which has stood the tests of the leaders in the scientific medical world both here and abroad, an organic iron combination in which, in its results, the general practitioner and the hospital clinician have learned from experience to place implicit confidence.

This unbusinesslike method of attempting to cast discredit upon other reliable and thoroughly tested combinations we cannot term otherwise than despicable, and furthermore we know our readers cannot be influenced by unsupported statements of financially interested parties, but will always bear in mind that Gude's Pepto-Mangan was submitted to the profession as an organic iron product, and the results obtained by its use, as also the scrutiny of analysis by chemists of repute, substantiate all that has ever been claimed for it.

Attempting to foist upon the attention of the physician a product simply by insinuation that known articles are inferior is a manner of doing business which should receive the stamp of disapproval by every one of our profession.—*The Toledo Medical and Surgical Reporter*, April, 1904.

THE TREATMENT OF INEBRIATES.

THE following resolutions were adopted at a meeting held at the residence of Dr. William Oldright, Toronto, April 19th, 1904:

1. That it is much to be deplored that up to the present time no provision has been made in this Province, either by the Government or by the municipalities, for promoting the treatment of indigent inebriates; that the general custom of committing these unfortunates to jail is neither deterrent nor reformatory; it is degrading and bad economy, and in cases where the inebriety is a disease it is inhuman.

2. That we deplore the fact that the members of the Ontario Government have not been able to see their way clear either for

the introduction of the proposed bill for the economic treatment of indigent inebriates, or for the adoption in this Province of the probation system for first offenders, either as delinquents or as drunkards—a system that is both economical and reformatory, and which saves from jail stigma and contamination.

3. That, realizing as we do that some action should be taken in this important matter without further delay, we recommend that the necessary steps be taken for the formation of a society for promoting the reformation of inebriates, but that before an appeal is made to the public for financial aid it is recommended that an effort be made to secure to the movement the commendation of prominent citizens.

We, the undersigned, have considered the above resolutions regarding the "Treatment of Inebriates," and are in hearty sympathy with them; we are willing to co-operate in the movement therein outlined, and would commend it to the earnest consideration of others.

WM. OLDRIGHT.
JAMES MASSIE.
A. M. ROSEBRUGH.

PHYSICIANS AND NURSES AS WITNESSES.

AN Act has been introduced into the New York State Assembly bearing upon the testamentary privileges of physicians and professional nurses. The first section of the amended Act reads as follows: "Physicians or professional or registered nurses not to disclose professional information. A person duly authorized to practise physic or surgery, or a professional or registered nurse, shall not be allowed to disclose any information which he acquired in attending a patient, in a professional capacity, and which was necessary to enable him to act in that capacity. In the examination of physicians or professional or registered nurses as witnesses it is enacted that these may, upon a trial or examination, disclose any information as to the mental or physical condition of a patient who is deceased which was acquired in attending such patient professionally, except confidential communications and such facts as would tend to disgrace the memory of the patient."

An Act of the nature now before the New York State Legislature would seem to be somewhat superfluous. The fact is generally well recognized that a medical man must preserve a discreet silence with regard to any information he may receive from a patient. The same statement applies to a professional or registered nurse. The physician and the nurse alike have no business whatsoever with any matter outside their own province of work, and their ears should be deaf to extraneous subjects. With the

physician, at least, it is a question of honor, and the man who failed to act up to the high level demanded of the medical profession would be rightly condemned by his brethren. If it is deemed necessary to seal the lips of professional and registered nurses by law, then let it be so. At the same time it would seem that there is no valid necessity for such a measure, as the courts very generally recognize the physician's privilege in such matters.—*Medical Record*.

MEDICAL LIBRARY'S NEW HOME.

FIFTEEN years ago the Medical Literary Association was organized at the instance of the late Dr. J. E. Graham. Since then 7,000 volumes have been acquired, constituting a valuable professional collection, and providing for the medical men what the Osgoode Library does for lawyers.

Dr. J. F. W. Ross is president of the association, and a Property Committee, consisting of Dr. Ross, Dr. R. A. Reeve and Dr. N. A. Powell, secretary, have acquired the Thorne house, No. 9 Queen's Park, by taking over the unexpired term of the lease and arranging with the university authorities for a further term.

The property has been valued at \$12,000, and will be remodeled so as to form a meeting place for the several medical societies, the Toronto Medical Society, the Clinical Society and the Pathological Society, which are co-operating with the Medical Librarian Association. A caretaker will reside on the premises, and there will be a librarian.

The library will be open to all physicians residing outside Toronto, but the Toronto doctors will subscribe the usual fee of \$5 per annum for their privileges.

The President states that as the objects of the medical organization are educational rather than social, it is misleading to refer to it as a club. It will be a medical institute and library, founded on the lines of a similar association in Birmingham, England. The residence will be used for literary and scientific purposes only. There will be from time to time lectures by specialists in various branches of medical study, and it is probable that before long a museum will be established under the same roof.

ITEMS OF INTEREST.

Queen's Medical Appointments.—These appointments have been made by Queen's trustees to the Medical College: To be associate professor of obstetrics and gynecology, Dr. Wood; to be assistant professor of anatomy, Dr. Mylks; to be professor of medical jurisprudence and toxicology, Dr. Williamson.

American Medical Editors' Association.—The annual meeting of this Association will be held in the parlors of the Hotel Dennis, Atlantic City, N.J., at 2 p.m., June 6th. A most interesting programme has been prepared and many instructive papers upon Medical Journalism and allied subjects will be presented. All editors are most cordially invited to attend.

Varsity Appointments.—The Ontario Cabinet at a recent meeting approved of the following appointments: H. S. Hutchinson, M.B.; W. M. Meldrum, M.S.; assistants in the chemical laboratory at Toronto University. R. H. Mullen, M.B., assistant demonstrator in pathology at Toronto University, and F. W. Marlow, M.D., assistant demonstrator in anatomy at Toronto University.

Medical Exchange.—Physicians desiring to secure a medical practice will do well to examine the fine list that is presented by the Canadian Medical Exchange among our advertising pages. Dr. Hamill, who conducts this important department of medical affairs assures us that he has seldom had such a choice list to select from, and we feel like telling our readers that this is a short cut to secure what they desire.

New Nurses' Home Opened.—The new Nursing-at-Home Mission, which has been in the process of construction for some time past, is now complete in every detail, and was officially dedicated and opened on April 30th. A meeting was held in the Toronto Mission Union Hall and addresses were delivered by Hon. S. H. Blake, Rev. T. B. Hyde, H. O'Brien, K.C.; Mrs. Rutherford, Mrs. Baldwin, Miss Robb and Rev. Dr. Salmon. After the meeting those present, numbering over 250, adjourned to the home. Tea was served by the nurses and the visitors inspected the new building. The place has been fitted handsomely and contains in addition to the nurses' quarters, a dispensary and public sitting rooms for the patients. The following doctors have given their services to the medical staff: Drs. McPherson, Currie, Porter, Clarkson, Burns, Sylvester, Emory and Ogden Jones.

About the Vermiform Appendix.—Dr. Alex. Primrose's paper before the Canadian Institute on April 30th, consisted of an account of the evolution of the vermiform appendix. The evolution of this structure from the conditions which are found in the lower animals formed the main part of the lecture. It was shown that in many of the lower animals there were very complicated structures in the region where the vermiform appendix is found in man and by means of a series of lantern slides the gradual evolution of the simple vestigial structure which is found

in man was traced from the more complex forms. The conditions found at this particular part of the intestines were described in fishes, amphibians, reptiles, birds and mammals.

A vermiform appendix similar to that in man exists only in the higher apes, some monkeys, and in certain of the marsupials, whilst structure closely resembling the human appendix were found in the duck-mole and some of the animals lower in the scale. It is shown further that the complicated structures that exist in the intestines of lower animals always increase when the animal is a vegetable feeder. The structure is more simple and the appendix is usually absent in the carnivora while in omnivorous animals (amongst which is man) the structure becomes much more simple and rudimentary. This went to show, the speaker concluded, that the human intestine is not intended for a purely vegetable diet.

Dr. Geo. M. Gould's "Biographic Clinics."—A writer in the *April Book Lover* is found, with Mr. Howells, disagreeing with Dr. George M. Gould's "Biographic Clinics," wherein he contends that eye-strain has robbed the world of the best work of its greatest writers. He is not sure that, had Carlyle been a normal, healthy person he would have improved "Sartor Resartus;" nor that, if George Eliot had been a fresh and buxom woman, her novels would take a higher place in literature. The normal person, he says, does things in a normal way, and it is not normal to write symphonies or masterpieces of literature. The normal person is "absorbed in the mere living of life; the abnormal one, cut off by his very abnormalities of mind or body (like a white swallow from the flock) from association with his fellows, from complete participation in the common pleasures, turns perhaps to contemplation and introspection." For example: Homer wrote the "Iliad;" he was blind. Aesop wrote immortal fables; he was a humpback. Byron was a great poet; he had a clubfoot. Manpassant was a great story-writer; he went mad. Poe's imagination was the most marvellous in literature; he was a drunkard. Milton wrote "Paradise Lost;" he was blind. Harriet Martineau was one of the few women who could write philosophy; she was deaf. De Quincey was a great essayist; he was an opium-eater; Nietzsche was a great philosopher; he went mad. Green was a great historian; he was ill all his life. Coleridge, the English poet, was an opium-eater, and Burns, the Scotch poet, was—but I will not repeat the expression. I love Bobbie Burns too well to write down what this man calls him,—"Kit's" department in *The Mail and Empire*.

The Physician's Library.

B L O K R E V I E W S .

Obstetrics for Nurses. By JOSEPH B. DELEE, M.D., Professor of Obstetrics in the Northwestern University Medical School, Chicago; Lecturer in the Nurses' Training Schools of Mercy, Wesley, Provident, Cook County, and Chicago Lying-in Hospitals. 12mo of 460 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Company. 1904. Cloth, \$2.50 net. Canadian agents: J. A. Carveth & Co., Toronto.

"To the woman about to become a mother or with the new-born infant upon her bosom, wherever she bears her tender burden, this book is respectfully dedicated." Such is the dedicatory notice appearing upon the title-page of Dr. Jos. B. DeLee's book, "*Obstetrics for Nurses.*" It is a book largely suitable, of course, for those who intend following the vocation of nursing, and by such will be found to be full of material that will prove of the greatest service to them in their work. It is divided into three parts, and an appendix, and covers in all 450 pages. Part I. is devoted to "The Anatomy and Physiology of the Reproductive System;" Part II. to "Nursing during Labor, and in the Puerperium;" and Part III. to "The Pathology of Pregnancy, Labor and Puerperium." We have never seen in any work such an excellent series of illustrations as those between pages 240 and 241, showing the management by the nurse of the various stages of labor. They add to the value of the chapter devoted to "Complications during Labor" very much indeed.

W. A. Y.

A Manual of Clinical Diagnosis. By Means of Microscopical and Chemical Methods, for Students, Hospital Physicians and Practitioners. By CHAS. E. SIMON, M.D., of Baltimore, Md. Fifth edition, thoroughly revised and enlarged. Illustrated with 150 engravings and 22 plates in color. Philadelphia and New York: Lea Brothers & Co. 1904.

It undoubtedly goes to show that an author and his work are appreciated when a book appears in five different editions in the short period of seven years, showing that one had hardly been written when the issue became exhausted. To that extent has

Dr. Simon's volume on clinical diagnosis been appreciated, so that he must feel that his literary efforts have not been in vain.

In order, of course, to keep abreast of the times, it is essential that a book devoted to a subject such as clinical diagnosis would have to be revised and added to from time to time. In this respect, the author has not been remiss, but, on the other hand, has in his fifth edition presented to the profession a book that can be looked upon as being almost a model in its method of teaching how the most efficiently to diagnose disease at the bedside, and to eliminate doubt from the conclusions arrived at. The author has accomplished his object with clearness and simplicity, and, if his methods are followed, the physician's work will be rendered easy and successful, and therefore the more enjoyable.

Manual of Clinical Microscopy and Chemistry, prepared for the use of Students and Practitioners of Medicine. By DR. HERMANN LENHARTZ, Professor of Medicine and Director of Hospital at Hamburg, etc. Authorized Translation from the Fourth and Last German Edition, with Notes and Additions. By HENRY T. BROOKS, M.D., Professor of Histology and Pathology at the New York Post-Graduate Medical School and Hospital; Member of the New York Academy of Medicine, etc. With 148 illustrations in the text and nine colored plates. Pages xxxii.-412, octavo. Bound in extra cloth. Philadelphia: F. A. Davis Company, publishers, 1914-1916 Cherry Street. Price, \$3.00 net.

This text-book might be said to have "cut its eye-teeth," for it has passed most successfully through three editions, and is about to make its bow in edition No. 4. It is a translation of this fourth edition that we have before us. The work is not a large one, having 394½ pages of reading matter, including 148 illustrations and 9 colored plates. The translator has inserted notes and illustrations, gathered from ten years' experience in teaching graduate students of medicine at the New York Post-Graduate Medical School and Hospital. Among the author's additions in this fourth edition are sections on the molecular concentration of the blood and urine (cryoscopy), the bacillus dysenteriae (Shiga), the paratyphoid bacillus (Schottmuller), a new method for staining the blood, and addenda to the section on the Widal reaction. The author has been careful to avoid repetition, has always borne in mind the importance of diagnosis in considering different questions, omitting all references to literature, but including in the text the names of authors who have elaborated the subjects when of historic interest, and in many other ways has made this manual a useful and ready reference in clinical medicine and chemistry.

W. H. P.

Infant-Feeding in Its Relation to Health and Disease. A Modern Book on all Methods of Feeding. For Students, Practitioners and Nurses. By LOUIS FISCHER, M.D., Visiting Physician to the Willard Parker and Riverside Hospitals, of New York; Attending Physician to the Children's Service of the New York German Poliklinik; Former Instructor in Diseases of Children at the New York Post-Graduate Medical School and Hospital; Fellow of the New York Academy of Medicine, etc. Third Edition, thoroughly revised and largely re-written. Containing 54 illustrations, with 24 charts and tables, mostly original. 357 pages, 5 3-4 by 8 3-4 inches. Neatly bound in extra cloth. Price, \$2.00 net. Philadelphia: F. A. Davis Company, Publishers, 1914-16 Cherry Street.

It can hardly be said of Dr. Louis Fischer, the writer of this excellent work, that, like lots of other "authors," he had not had sufficient practical experience before launching himself into the field of literature. On the other hand, Dr. Fischer has for about twenty years' time had very extensive experience in one of the largest children's clinics in America, and during that time must have "stored away" an immense amount of material, the direct result and outcome of his daily work in pediatrics. That material he now gives the profession the benefit of in the third edition of his book on "Infant-Feeding," covering in all about 300 pages. It is a fact that the subject of modern methods of infant feeding is far too much an unknown quantity to the majority of medical practitioners. There are those who can reduce congenital dislocation of the hip joint, but who can not advise correctly as to how infants at different ages should be fed, and at the same time be healthy and increase in weight from day to day. To such we say, purchase Dr. Louis Fischer's work. It has been carefully revised, and a good deal of new material added, *e.g.*, chapters on "Milk Idiosyncrasies in Children," "Buttermilk Feeding," "Feeding Children Affected with Cleft Palate," with some capital illustrations showing specimens of "Poor Breast Milk."

Pain and Its Indications. An Analytical Outline of Diagnosis and Treatment. By EDWARD C. HILL, M.S., M.D., Medical Analyst and Microscopist; Professor of Chemistry in the Medical and Dental Departments of the University of Denver; Attending Physician, St. Anthony's Hospital, Denver; Author of "A Text-Book of Medical Chemistry." Chicago: G. P. Engelhard & Co. 1904.

We cannot say that we know of any book in any language that has come under our notice devoted to the subject of "Pain and Its Indications." What is there that so often comes under the notice of the medical practitioner and demands his attention

for its relief as pain in different parts of the human anatomy, and how frequently is it the case that, though it can be frequently relieved without delay, its exact origin is not, at the time anyway, located. Dr. Hill's work will materially assist in this respect, and be found to be the handiest kind of a manual for the desk or pocket, and one that can be readily referred to in more or less of an emergency. The book consists of eleven chapters, *e.g.*, Headache, Pain in the Ear and Nose, Pain in the Mouth and Throat, Chest Pain, Backache, Abdominal Pain, Pelvic Pain, Genito-Urinary Pain, Proctalgia, Limb and Joint Pains, and Dermatalgia. In each chapter, the author takes up the various forms of pain in its different locations, and gives in the same paragraph its different symptoms, and the best forms of treatment for its relief. The book costs but \$1.00, and is worth all of that. W. A. Y.

Diseases of the Intestines. A Text-Book for Practitioners and Students of Medicine. By MAX ELLIOTT, M.B., Prof of Medicine in the New York Post-Graduate School and Hospital. Second edition. New York: William Wood & Co., Publishers.

This work is really a continuation of the excellent book on "Diseases of the Stomach," by the same author. The first chapter contains a resume of the anatomy—gross and minute—of the intestinal canal, and also its physiology. We wonder what some of the leading physiologists would say to condensing the physiology of the intestinal tract into twelve pages, and yet such is done, and done very successfully, too.

Then the methods of examination are gone into exhaustively, for this is such an important subject. Are not most of our errors in diagnosis sins rather of omission than of commission?

The other chapters are devoted to acute and chronic intestinal catarrh, dysentery, ulcers of the intestines, neoplasms, hemorrhoids, appendicitis, obstruction, nervous affections, and intestinal parasites. A careful perusal of the book will be useful to anyone; but to the surgeon, the chapter on appendicitis and on new growths is most interesting reading. S.

Contributions to Practical Medicine. By JAMES SAWYER, Senior Consulting Physician to the Queen's Hospital, Birmingham. Fourth edition, with many revisions and additions. Birmingham: Cornish Bros. 1904.

It is the common every-day ailments, and particularly those which are remedial or curative, which should demand the specialization of the general practitioner. The author has aimed, as he says, at utility in medical practice, and deals with a few of the subjects occurring most frequently in his own extensive practice,

covering a period of thirty-five years. The first edition was published in 1886, and the third edition two years ago. There are some changes and improvements since the last edition. Among the subjects embraced are: The Causes and Cure of Insomnia, the Cure of Gastralgia, Treatment and Cure of Habitual Constipation, Intestinal Obstruction, Floating Kidneys, Cure of Eczema, Fumig, Inhalations in Asthma, Diet in Diabetes, Medicated Lozenges, Accentuation of the Pulmonary, Second Sound of the Heart, and there is even a chapter devoted to the cause and cure of a form of backache—the backache of loaded colon.

E. H. A.

Saunders' Medical Hand-Atlases.

Atlas and Epitome of Operative Gynecology. By DR. O. SCHAFER, of Heidelberg. Edited, with additions, by J. Clarence Webster, M.D. (Edin.), F.R.C.P.E., Professor of Obstetrics and Gynecology in Rush Medical College, in affiliation with the University of Chicago. With 42 lithographic plates in colors, many text cuts, a number in colors, and 138 pages of text. Philadelphia, New York, London: W. B. Saunders & Company. 1904. Cloth, \$3.00 net. Canadian agents: J. A. Carveth & Co., Toronto.

It is an admitted fact that one of the branches of study that not nearly sufficient attention is paid to in teaching students in not only Canadian, but American, colleges is that of operative gynecology. How can it be wondered at, therefore, that young practitioners are unable to "tackle" a case of anterior or posterior kolporrhaphy, or a kolpoperineorrhaphy, or even a celiotomy, when the majority of them take their degree without ever having an opportunity of seeing, much less taking part in, such operations as those named? An atlas such as Dr. Schaffer's will prove of great assistance to any practitioner thinking of operating in some difficult pelvic case, which his innate modesty forced him to hesitate at first in undertaking. Dr. Clarence Webster is to be congratulated upon his work. We cannot, however, speak as highly of many of the lithographic plates, which, in comparison with those in preceding atlases, are distinctly disappointing as to execution and coloring.

A Practical Guide to the Administration of the Nauheim Treatment of Chronic Diseases of the Heart in England. By LESLIE THORNE THORNE, M.D., B.S., Durham; Medical Examiner to the London County Council Technical Board. London: Bailliere, Tynndall & Cox, 8 Henrietta Street, Covent Garden. 1904.

The author, without entering into a lengthy discussion of the theories of the treatment or a description of Nauheim and its

baths, endeavors to give a short detailed practical description of this method of treatment, which consists essentially in the administration of a graduated course of baths prepared artificially so as to resemble, in all active ingredients, the natural baths of Nauheim. A chapter is devoted to a method of administration of exercises invented and perfected by the late Dr. Augustus Schott and his brother, Prof. Theodore Schott. This little book is well illustrated with sphygmographic tracings, showing the influence of the effects of immersion upon the rate, volume and tension of the pulse.

E. H. A.

Golden Rules on Dental Surgery. By CHAS. W. GLASSINGTON, M.R.C.S., L.D.S. (Ed.), Senior Dental Surgeon to the Westminster Hospital; Lecturer on Dental Materia Medica and Therapeutics (late Dental Surgeon) to the National Dental Hospital and College, etc. Golden Rules Series, No. XIII. Bristol: John Wright & Co. London: Simpkin, Marshall, Hamilton, Kent & Co., Limited.

This is a waistcoat pocket edition, intended specially for the author's past and present students; but students and young practitioners in the United States and Canada will profit also if they utilize this concise little booklet in their spare moments. While some of these golden rules on dental surgery may seem somewhat arbitrary from an American standpoint of dental knowledge, still we must admit, if there are any signs, they are those rather of omission than of commission.

E. H. A.

Lectures, Chiefly Clinical and Practical, on Diseases of the Lungs and the Heart. By JAMES ALEXANDER LINDSAY, M.D., F.R.C.P. (Lond.), M.A., Professor of Medicine, Queen's College, Belfast. London: Bailliere, Tindall & Cox, Henrietta Street, Covent Garden. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto. 1904.

This volume purports to be the substance of clinical lectures delivered during the past fifteen years, and consists rather of didactic information than of clinical demonstration. The conditions treated of are dealt with systematically, and few of the lectures are an interpretation of the phenomena presented by any patient, or series of patients, and in that sense can scarcely be called clinical. The volume will be found a useful one for any physician to refer to when in difficulty.

A. M. P.

My Friend Prospero. By HENRY HARLAND. Toronto: William Briggs.

A charming love story, the courtship aglow with the radiance of summer skies in Italy; romantic, humorous; in a word, bewitching, even to the reader.

The Infectivity of Enteric Fever. With Observations on Its Origin and Incidence at Caius College, Cambridge, Festiniog and Wicken-Conant. By ALEXANDER COLLIE, M.D. (Aberd.), late Clinical Instructor at the Eastern Hospital, etc. Bristol: John Wright & Co., Printers, Stone Bridge. London: Simpkin, Marshall, Hamilton, Kent & Co., Ltd. 1904.

In this little book of 47 pages, the author makes a strong argument for the infectivity of enteric fever, and, to our mind, with complete success. There can be no question that the germs of typhoid get on the patient's skin and clothing from both feces and urine, and are distributed over the surface by fingers and otherwise, and thus form an easy source of infection.

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